

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

[PRICE 6D.]

99 0 99 97 18 97

INDIA AND LONDON LIFE ASSURANCE COMPANY,

INCORPORATED BY ACT OF PARLIAMENT, 7 and 8 Vic., cap. 118.
 DIRECTORS:
 RICHARD HARTLEY KENNEDY, Esq., Chairman.
 GEORGE WILLIAM ANDERSON, Esq., Deputy-Chairman.
 Sir H. Elphinstone, Bart., M.P.
 Harry G. Gordon, Esq.
 Frederick Jones, Esq.
 Rev. S. Tension Moss

ADVANTAGES OF THIS INSTITUTION.
 Assurances effected on all classes of lives, including the lives of persons proceeding to, or residing in, India and other parts of the world, of officers actively employed in Military or Naval Service, and of persons afflicted with bodily or mental infirmities.
 Endowments granted to widows, and existing or future children.
 Tables of rates adapted to suit the circumstances and convenience of every class of policy holders.
 Indian rates of premium much lower than in any existing company.
 Age of the assured, in every case, admitted in the policy.
 Impaired state of health admitted in policies on invalid lives.

EXTRACTS FROM THE TABLES.

EUROPEAN RATES.				INDIAN RATES.			
Annual Premium for £100. Half Premium Table.				Annual Premium for 1000 rupees.			
Age	First Seven Years.	Remainder of Life.		Civil Service.	Military Service.		
				One Year.	Whole Life.	One Year.	Whole Life.
Age	£ s. d.	£ s. d.		Rupees.	Rupees.	Rupees.	Rupees.
20	1 0 0	2 11 8	30	36	98	36	46
30	1 5 0	3 11 6	40	32	48	42	55
40	2 14 0	5 8 10	50	42	65	52	70
50	4 11 0	9 2 0	60	62	90	70	93

Prospectuses and every requisite information may be obtained on application at the office.
 GEORGE N. WRIGHT, M.A., Manager.

GREAT BRITAIN MUTUAL LIFE ASSURANCE SOCIETY, 14, WATERLOO-PLACE, LONDON.

THE CHISHOLM, Chairman. W. MORLEY, Esq., Deputy-Chairman.

HALF CREDIT RATES OF PREMIUM.
 The attention of ASSUREES is particularly directed to the Half Credit Rates of Premium, by which means assurance may be effected, and loans for short periods secured with the least possible present outlay, and at a less premium than for short terms only, and with the option of paying up the arrears and interest—thus becoming entitled to participate in the whole of the profit of the institution.

Extract from the Half Credit Rates of Premium.
 Age 20. Age 30. Age 40. Age 50. Age 60.
 £17 0 £1 1 1 £1 2 £1 5 0 £3 4 2

Thus £1000 may be assured at the age of 30 by the annual payment of £10 10s. 10d. for the first five years.

The whole of the profits divided ANNUALLY among the members, after payment of five annual premiums.

An ample guaranteed capital, in addition to the fund continually accumulating from premiums, fully sufficient to afford complete security to the policy-holders.

Members assured to the extent of £1000 entitled (after payment of five annual premiums) to attend and vote at all general meetings, which will have the superintendence and control of the funds and affairs of the society.

Full particulars are detailed in the prospectus, which, with every requisite information, may be obtained by application to A. R. IRVINE, Managing Director.

UNDER THE PATRONAGE OF ROYALTY AND THE AUTHORITY OF THE FACULTY.

KEATING'S COUGH LOZENGES.—A remedy for all disorders of the pulmonary organs—in difficulty of breathing—in redundancy of phlegm—in incipient consumption (of which cough is the most positive indication) they are of unerring efficacy. In asthma, and in winter cough, they have been seldom known to fail. KEATING'S COUGH LOZENGES are free from every deleterious ingredient; they may, therefore, be taken at all times, by the most delicate female and by the youngest child; while the public speaker and the professional singer will find them invaluable in allaying the hoarseness and irritation incidental in vocal execution, and consequently a powerful auxiliary in the production of melodious enunciation.

Prepared and sold in boxes, 1s. 1d., and tins 2s. 9d., 4s. 6d., and 10s. 6d. each, by Thomas Keating, chemist, &c. No. 79, St. Paul's Churchyard, London.

Sold by Sanger, 150, and Dietrichsen and Hannay, 63, Oxford-street; Blake, Sandford, and Blake, 47, Piccadilly.—Sold wholesale by Barclay and Sons, 95, Farringdon-street; Edwards, 67, and Newberry, 45, St. Paul's Churchyard; Sutton and Co., Bow Church-yard; and retail by all druggists and patent medicine vendors in the kingdom.

RECENT TESTIMONIAL. Dover, January 25, 1845.

Sir,—I have great pleasure in informing you, that the 2s. 9d. box of KEATING'S COUGH LOZENGES, had at your house about three weeks since, relieved Mrs. Hiller of a bad cough, to which she has been subject many years, especially in the winter season. A considerable portion of the lozenges are on hand, nor has she, for the last fortnight, had any occasion to use them.

Yours respectfully,
 Mr. S. Marten, Dover. F. I. HILLER, Jun.

Just published, a new and important Edition, price 2s. 6d.; free by post, 3s. 6d.

THE SILENT FRIEND: a medical work, on Human Frailty, Nervous Debility, constitutional weakness, excessive indulgence, &c.; with Observations on Marriage, &c. By R. and L. PERRY and Co., surgeons, London. Published by the authors, and sold at their residence; also by Strange, 21, Paternoster-row; Hannay and Co., 63, Oxford-street; Noble, 109, Chancery-lane, Gordon, 146, Leadenhall-street; Purkiss, Compton-street, Soho, London.

The CORDIAL BALM OF SYRIACUM is a stimulant and renovator in all spasmodic complaints. Nervous debility, indigestion, asthma, and consumption, are gradually and imperceptibly removed by its use, and the whole system restored to a healthy state of organization. Sold in bottles, price 11s. and 3s.

THE CONCENTRATED DEPURATOR, ESSENCE.—An anti-syphilitic remedy for searching out and purifying the blood from venereal contamination, scurvy, blotches on the head, face, and body, ulcerations, and those painful affections arising from improper treatment, or the effects of mercury, removing secondary symptoms, and all eruptions of the skin. Price 11s. and 3s. per bottle; also 6s. cases.

PERRY'S PURIFYING SPECIFIC PILLS have long been used as the most certain remedy for scurvy complaints of every description, eruptions of the skin, pimples on the face, and other disagreeable affections, the result of an impure state of the blood. The pills are perfectly free from mercury, calomel, and other deleterious drugs, and may be taken with safety without interference with or loss of time from business, and may be relied upon in every instance. Sold in boxes, at 2s. 6d., 4s. 6d., and 11s. each, all medicine vendors of whom may be had the Silent Friend.

Messrs. H. and L. Perry and Co. may be consulted at 19, Berners-street, Oxford-street, London, daily; at 106, Duke-street, Liverpool, every Thursday, Friday, and Saturday; and 10, St. John-street, Deansgate, Manchester, on Mondays, Tuesdays, and Wednesdays.

CURTIS ON MENTAL AND GENERATIVE DISEASES.

Just published, a Medical Work, in a sealed envelope, 3s., and sent, post-paid, for 3s. 6d.

MANHOOD: THE CAUSES OF ITS PREMATURE DECLINE.—With plain directions for its perfect restoration; addressed to those suffering from nervous debility or mental irritation, followed by observations on Marriage; the treatment of diseases of the generative system; illustrated with cases, &c. By J. L. CURTIS and Co., consulting surgeons, 7, Fritts-street, Soho-square, London.

Published by the authors, and may be had at their residence; also by Strange, 21, Paternoster-row; Hannay, 63, Oxford-street; Mann, 39, Cornhill, London; Guest, 51, Bull-street, Birmingham; T. Sowler, 4, St. Ann's-square, Manchester; G. Phillips, South Castle-street, Liverpool; J. Clancy, 6, Bedford-row, Dublin; Henderson, Castle-place, Belfast; W. and H. Robinson, booksellers, Greenisle-street, Edinburgh; Love, 5, Nelson-street, Glasgow; and sold in a sealed envelope by all booksellers.

REVIEWS OF THE WORK.

MANHOOD. By J. L. CURTIS and Co. (Strange).—In this age of pretension, when the privileges of the true are constantly usurped by the false and fraudulent, it is difficult to afford the sufferer from nervous debility, the cheering means of judgment where to seek relief. The authors of this work have obtained the difficulty. Their long experience and reputation in the treatment of these painful diseases is the patient's guarantee, and well deserves for the work its immense circulation.—*Rev.*

CURTIS ON MANHOOD (Strange).—A perusal of this work will easily distinguish its talented authors from the host of medical writers whose pretensions to cure all diseases are daily so indecently thrust before the public. Its originality is apparent, and its personal breathes consolation and hope to the mind of the patient.—*Naval and Military Gazette.*

CURTIS ON MANHOOD should be in the hands of youth and old age. It is a medical publication, ably written, and develops the treatment of a class of painful maladies which has too long been the prey of the illiterate and designing.—*United Service Gazette.*

Messrs. Curtis and Co. are to be consulted daily at their residence, No. 7, Fritts-street, Soho-square, London.

Country Patients are requested to be as minute as possible in the detail of their cases. The communication must be accompanied by the usual consultation fee of £1, and in all cases the most inviolable secrecy may be relied on.

ON THE SECRET INFIRMITIES OF YOUTH AND MATURITY.

With 25 coloured engravings.

Just published, sixteenth thousand (in a sealed envelope), price 2s. 6d.; or post-paid to any address, for 3s. 6d., in postage stamps, or Post-office order.

SELF-PRESERVATION: A Medical Treatise, on Marriage, and on the Secret Infirmitates and Disorders of Youth and Maturity. Illustrated with 25 coloured plates on the anatomy, physiology, and diseases of the urinary and reproductive organs, explaining their various structures, uses, and functions, and the injuries that are produced in them, by solitary habits and other excesses. With practical observations on the treatment of nervous debility, local and constitutional weakness, syphilis, stricture, and other diseases of the urethra. By SAMUEL LAURENT, consulting surgeon, 9, Bedford-street, Bedford-square, London, Matriculated Member of the University of Edinburgh, Honorary Member of the London Hospital Medical Society, Licentiate of Apothecaries' Hall, London, &c.

Reviews of the work.

"The author of this singular and talented work is a legally qualified medical man, who has evidently had considerable experience in the treatment of the various disorders, arising from the follies and frailties of early indiscretion. The engravings are an invaluable addition, by demonstrating the consequences of excesses, which must act as a salutary warning to youth and maturity, and by its personal, many questions may be satisfactorily replied to, that admit of no appeal, even to the most confidential friend."—*Rev.*

Published by the author; and may be had at his residence; also from S. Gilbert, 52, Paternoster-row; Hannay and Co., 63, Oxford-street; Starke, 23, Tichborne-street, Quadrant, Gordon, 146, Leadenhall-street, London; Newton, 16, Church-street, Liverpool; and all booksellers.

At home for consultation daily, from nine till two, and from five till eight; and all letters, immediately replied to, if containing the fee of £1, for advice, &c.—9, Bedford-street, Bedford-square, London.

MINING IN CORNWALL AND DEVON.—No. III.

CARADON CONSOLS.—This mine is situated immediately adjoining West Caradon on the east, Craddock Moor on the north, Wheal Agar, St. Cleer Consols, and Caradon United on the south, and Wheal Norris on the west. The set extends about 700 fathoms on the course of the lodes east and west, and about 300 fathoms north and south. The mine is held under lease from William Pote, Esq., and Samuel Sargent, Esq., at 15th dues, there being 17 years to run. Mr. Thomas Kinton acts as purser—the practical management of the mine being with Capt. James Clymo. The mine is divided into 256 shares, on which 33d. per share has been paid, and is carried on on the cost-book system—meetings being held on the mine when necessary. The total amount expended is 8448l.—the present average monthly cost being from 160l. to 170l. The calls during the past six months have been 7l. per 256th share, or 1792l. The distance from the shipping port is 11 miles, being five by railway, and six by canal—the railway passing through the set. The cost of carriage is about 6s. per ton. An engine is at work of 45-inch cylinder, with 8 feet stroke, working 4 strokes per minute—the quantity of coal consumed monthly being about 16 tons. Six lodes have been discovered, ranging nearly east and west, the ordinary course of the lodes in the district, with an underlay north of about 2 feet in a fathom. The lodes are composed principally of peach and fluor, with occasional stones of grey and yellow copper ore, yielding a high produce. Two shafts have been sunk, each being to the depth of about 50 fathoms: the 15 fathom level has been driven 50 fms. on the course of the lode, and the 27 fathom level 37 fathoms. There are 40 men employed—36 underground at the work, and 4 at surface; the average wages of whom may be taken at 3l. per month. The country is in granite, and an adit has been driven 320 fathoms—240 fathoms in a north-easterly direction, and 80 fathoms east and west, on the run of the lodes: three cross-courses have been seen running nearly north and south.

CARADON UNITED MINES.—In last week's Journal we gave some particulars of this set; but not being in possession of full information at the moment, we now resume the subject—having since acquired the necessary data from inquiries instituted on the ground, and communications received from Capt. Penrose, the managing agent.—These sets are from 600 to 700 fms. east and west, and in the Penhale grant, from 400 to 500 fms. north and south. Caradon Consols joins to the north-east; Wheal Norris to the north; Wheal St. Cleer to the north-west; and St. Cleer Consols to the east. In the Torr, six lodes have been discovered; the north lode underlays north 16 in. in a fathom, and we expect will be in our shaft 50 fms. deep, and have about 7 fms. to drive to the 30 to cut it; it is composed of gossan, prion, flookan, spar, &c. The shaft is down nearly 29 fms. in hard granite rock, with a number of small branches, composed of portions of copper ore, mundie, and peach, dropping into the lode. The next lode is 7 fms. south of this, underlays north 1½ in 6, about 3 ft. wide, composed of gossan, spar, peach, &c. The next is 9 fms. south of the latter, and is 5 ft. wide, nearly perpendicular, of a kindly character. There is another lode 10 fms. south of this, 1 ft. 6 in. wide, underlays north—this is in a white elvan course; about 10 fms. south of this latter, is a lode 2 ft. wide, underlaying north 2½ in 6, composed of peach, spar, and capel. The next is about 20 fms. further south, which is small. The course of these lodes is nearly east and west. In the Penhale, a large caunter lode has been cut, bearing about 30° to the south of east, composed of spar, gossan, flookan, and prion; it appears there is another caunter 16 fms. south of the latter. The adit has been driven 213 fms. nearly due north, which has intersected 18 lodes and branches; on one, 18 fms. has been driven west, and on the other 9 fms. east, with stones of copper ore. It is contemplated to drive the adit on a cross-course, which forms a junction with the lode, so as to intersect the other several lodes, which will come in at its extreme depth (36 fms.). Two cross-courses have been seen in the Penhale, and two in the Torr, near the engine-shaft; and there is reason to believe there are several others. The engine is a 45-in. cylinder, and capable of putting the mine 180 fms. deep; consumes about 8 cwt. of coals in 24 hours, or 12 tons per month. There are eight miners employed in the shaft, and four labourers; six men in the adit, and one labourer; two engine-men, two landers, one smith, and one owner's account man.

CARADON WHEAL HOOPER.—This set is bounded on the north, east, and west by South Caradon Mine, and on the south by Caradon Copper Mine. Its extent from west to east, on the course of the lodes, is about 300 fms., and it is conducted on the cost-book system, the meetings being held every two months at Launceston, Callington, and on the mine, alternately: John Turner Pearce, Esq., of the former place, is the purser, and Capt. John Seymour the agent. The mine is divided into 256 shares, on which 14d. has been paid, 3d. per share having been called in the last four months; the average monthly cost is about 140l.; it is distant five miles from the canal, a communication being made by railway—the carriage of the ores costing 4s. 6d., and timber 6s. 6d. per ton. There is one engine erected on the mine, with 29-in. cylinder, 7 ft. 4 in. stroke, consuming about 18 tons of coal per month, at 23s. 3d. per ton. The country is a soft blue killas, in which 10 lodes have been discovered, the direction generally south of east, and north of west, consisting of peach, quartz, gossan, prion, flookan, capel, carbonates of iron and of lime, can, and some fine spots of copper ore. Their underlay is as follows:—Daw's 2 ft. in a f.m., Dingle's 2½ in. Carpenter's 2½ ft., Martin's 2 ft. Sawpit 1 ft., Seymour's 6 in., Taple's 1 ft., Clymo's 1 ft., Gake's 1½ ft., and Hooper's 1 ft. There are about 15 men at present employed, at wages averaging 3l. per month; no tribute pitches have yet been set, nor has there been any return at present.

[We shall next week commence our description of the mines in the district of St. Neot, and add those of Lamheroe and Wheal Benny, in the Callington and Wh. Maria districts.]

MINES IN RUSSIA.—A letter from St. Petersburg, of 27th June, says:—The produce of the gold mines in Russia is yearly increasing. In 1841 the quantity extracted from those mines was 961 pounds (9610 kilogrammes), amounting in value to 39,000,200 fr.; in 1842, 9810 kilog., value 53,200,000 fr.; in 1843, 12,950 kilog., value 72,800,000 fr.; in 1844, 13,410 kilog., value 75,600,000 fr.; in 1845, 13,711 kilog., value 79,000,000 fr.; making in the five years a total weight of 59,400 kilog., of the value of 319,000,000 fr. Up to the present time almost all the produce of the gold mines of Russia has been exported to England; but if the quantity continues to increase progressively, or if it even no longer exceeds the quantity obtained in 1845, England will cease to receive it, at least the greater part, and then it will be necessary for us to seek other markets for our gold, which it may perhaps be rather difficult to find. But let us hope that the new system of commercial policy which the government has adopted, and particularly the reduction of the import duties, which has been the first consequence of it, will increase our consumption of foreign merchandise, in the purchase of which our gold may find an advantageous employment. However this may be, the workings of the gold mines of Russia must necessarily cause sooner or later a great revolution in the commerce and industry, not only of Russia, but on all points of the globe.

SILVER ORE FROM CALLAO.—The *Penguin* has arrived in the West India Docks, with a cargo of 500 tons of guano, and about 8 tons of silver ore.

MEXICAN SILVER MINES.—The Indians have discovered that their silver mines have made their condition rather worse than better. They determine, therefore, to keep secret their knowledge of some rich veins of silver not yet explored by Europeans. Traditions of these mines have been handed down, it is supposed, from father to son, through centuries. Even brandy, which will open the Indian's mouth on any other subject, fails in this case. A few years ago, there lived, in the large village of Huancayo, the brothers Don Jose and Don Pedro Iriarte, who were among the wealthiest mine proprietors of Peru. As they had reason to suspect the existence of rich unexplored veins among the neighbouring hills, they sent out a young man in their employ to examine the country, and use the likeliest means of discovery. Accordingly, he repaired to a village where he found lodgings in the hut of an Indian shepherd, from whom he concealed his object. In the course of a few months, an attachment had grown up between the young adventurer and the shepherd's daughter; and, at last, the young man succeeded so far in his object as to win from the girl a promise that she would point out to him the mouth of a rich silver mine. She directed him to follow her, at some distance, on a certain day, when she should go out to tend her flock on the hills; and to notice where she dropped her "manta" (a woollen shawl). There, she told him, he would find the entrance of the mine. The young agent obeyed her directions; and after some digging found his way into a moderately deep shaft, which led to a rich vein of silver. He was busily engaged in breaking off some specimens of the ore, when he was surprised by the old shepherd, who congratulated him on the discovery, and offered assistance. After working together for some hours, they rested; and the Indian offered to the young man a cup of *chicha*, which he drank. Soon after drinking, he felt unwell; and, as a suspicion of being poisoned flashed upon his mind, he instantly packed the specimens of ore in his wallet, hastened back to the village, and thence rode to Huancayo. He had only time to explain his adventure to his employers, and point out, as well as he could, the locality of the mine; for he died in the night. Another exploring party was immediately sent into the neighbourhood, but without success; the Indian and his family had vanished from the place, and no trace of the mine could be discovered.—*Sketches of Travels.*

Mining Correspondence.

ENGLISH MINES.

BARRISTOWN.—The lode in the 18th level and west is very large—the north part, which we are at present driving on, will produce about 2 tons per fm.; the lode in the eastern end is at present small, having just passed through a slide, scarcely producing 1 ton per fm. We have a lode in the 24 fm. level, west of engine-shaft, about 2 ft. wide, perpendicular, mixed with lead, producing some saving work; the lode in the adit end east is producing some good stones of ore in the gossan. The ends will be at work in Nangle's shaft to-day; the pitches are looking very well. We shall have a cargo ready for shipment in about a fortnight, of 40 tons. Our operations at Close Mines are confined to bringing in an open cast, to form a level on each side of the valley, opposite the mine.—T. ASGOVE: July 11.

BEDFORD.—At Wheal Marquis, there has been no lode taken down at the 80 fm. level east. The lode in the 70 fm. level east is 2 ft. wide, saving work; and in the stopes, in the bottom of this level, the lode is worth 18l. per fm. The lode in the 58 fm. level east continues poor. At Ding Dong, the lode in the 24 fm. level west is 2½ ft. wide, composed of spar, peach, and tin. At Wheal Tavistock, the lode in the 47 fm. level, east and west, is without alteration. In the 35 fm. level east the lode is 15 in. wide, mundie, spar, and ore; and in this level west the lode is 2 ft. wide, producing saving work. The south engine-shaft is 15 fms. 2 ft. under the surface, the lode is upwards of 9 ft. wide, principally iron, gossan, and spar, with good stones of ore in places. There is nothing new in respect of the adit level.—JAMES PHILLIPS: July 14.

CALLINGTON.—In the 112 fm. level, driving north from Johnson's engine-shaft, the lode has not been taken down; in the south end the lode is producing silver-lead ores. In the 100 fm. level, driving south, the lode has a very promising appearance, the back will set at 7s. in the 1l, on the value of the lead; in the north end we are opening tribute ground. In the 90 fm. level, driving north, the lode has not been taken down. In the 80 fm. level the lode is producing silver-lead ores. At the north mine, the ground is rather hard for cross-cutting in the 100 fm. level. In the 90 fm. level south the lode has not been taken down; the wall of the same has a more promising appearance. In the 80 fm. level we are opening tribute ground.—J. T. PHILLIPS: July 13.

EAST TAMAR CONSOLS.—At Whitsun, in the 46 fm. level, south of Hitchins's shaft, the lode is just the same as last report; in the 46 fm. level, north of ditto, the lode is 2 ft. wide, good work. In the 36 fm. level, north of ditto, the lode is 18 in. wide, saving work. At Furzehill, Harrison's shaft is cleared to the bottom, the lode is 2 ft. wide, producing good stones of silver-lead ore. Our pitches are looking well; the men are getting wages, so that there is every appearance of increasing our sampling. We are getting on in our dressing department as fast as possible.—B. ROBINS: July 13.

GUNNIS LAKE.—At Chilworth, Bailey's engine-shaft is 9 fms. 4 ft. 6 in. under the adit level; there has been no lode taken down. In the 10 fm. level, east and west of western shaft, there is no important alteration.—WILLIAM RICHARDS: July 14.

HAWKMOOR.—I beg to inform you, that the lode in the 15 fm. level, east of Hitchins's shaft, continues about 2 ft. wide, composed of capel and spar, producing stones of ore occasionally.—P. RICHARDS: July 14.

HOLMBUSH.—The ground in Hitchins's shaft, sinking below the 120 fm. level, is much the same as last reported on, and the great engine keeping the water in fork, with less than six strokes per minute. The ground in the 120 fm. level, west of Hitchins's shaft, cutting through the great cross-course, is favourable for driving. In the 110 fm. level north the lode is 4 ft. wide, composed of spar, prion, and stones of lead; the ground is not so favourable for driving. In the 100 fm. level, west of Hitchins's shaft (on the north part), the lode is 12 in. wide, producing stones of ore; in the winze, sinking behind this end, the lode is 20 in. wide, and worth 15l. per fm.; in the 100 fm. level, west of the lead lode (on the south part), the lode is 16 in. wide, composed of capel and spots of ore; at this level, driving south, the lead lode is 3 ft. wide, composed of spar, prion, and stones of lead; the pare of tributaries in the back of this level are making moderate wages; in the same level, driving north, the lead lode is 2½ ft. wide, composed of spar, flookan, and stones of lead. In the 90 fm. level, west of Hitchins's shaft (on the north part), the lode is 12 in. wide, composed of spar, mundie, and stones of ore; the rise against Bray's shaft is still hard. In the 62 fm. level south the lead lode is 2 ft. wide, composed of spar, flookan, and spots of lead. We have a pitch in the bottom of the 100 fm. level, between the great cross-course and the lead lode, that is set at 2s. 9d. in the 1l tribute, which is turning out well.—W. LEAN: July 14.

LAMHEROE WHEAL MARIA.—I beg leave to lay before you a brief recapitulation of the several workings in the mine, and the result of our inquiries, since the management has been entrusted to my hands, which will, I trust, prove to you that your interests have been carefully protected and promoted as far as lies in my power. A strict adherence to economy has been observed, consistent with the nature of the several points of working, and the time occupied in pressing forward the completion of the erection of the engine, and putting her to work. You are already in possession of full information as to the number and nature of the lodes discovered by costaining, but, without a desire to be prolix in this report, I will, in a few words, describe their position and prospects. Eleven lodes have been seen at surface, the one extreme south, being the same as that now being worked upon in Wheal Benny set, which is on the south, or Cornwall, side of the River Tamar; this lode passes through the south-west portion of the set, and has a north underlay, of about 3 ft. in a fm. The next two lodes also pass across the Tamar, from the Benny set, having about the same underlay. The next lode, proceeding north, has a south underlay, as also the lode immediately north, while the others have a north underlay. As regards the direction of the lodes, they vary from 12° to 20° south of east, and north of west. Their relative distances, proceeding north from the Tamar, are about as follows:—K lode (the extreme south, the Wheal Benny lode crossing the Tamar) is at a certain point, we will assume 10 fms. north of the river; J lode is again 30 fms. further north; I lode 4 fms.; H lode 25 fms.; G lode 23 fms.; F lode 55 fms.; E lode 80 fms.; D lode 78 fms.; C lode 80 fms.; B lode 35 fms.; A lode 75 fms. Two shafts have been sunk—the engine-shaft being 18 fms. 1 ft. below surface, and at a distance of about 180 fms. north of the River Tamar, taken at right angles, with the direction of the lodes. The whim-shaft is about 120 fms. further south, or 60 fms. north of the River Tamar, and is sunk 8 fms. 4 ft. 6 in. from surface. The engine of 60-in. cylinder, erected by Messrs. Hocking and Loam, is now at work, and the engine-shaft is in fork—so that the shaft will be continued sinking with all speed, with eight men; and my calculation is, that with the present nature of ground, we shall continue sinking about 4 fms. per month; this would enable us to get down to the 80 fm. level in from 4 to 5 months, when it would be desirable to cross-cut, to see the F lode, continuing south until we intersect, or communicate, with the cross-cut, driving north from the whim-shaft, which I would propose driving out at about the 24 fm. level, there being a rise of about 6 or 7 fms. between the north, or engine-shaft, and that of the south shaft, and will be down about the same time. A communication, by means of flat-roads, will be made between the two shafts, which, I expect, be fixed, and in order of working, within a fortnight from the present time. As regards the nature of the lodes, I have but little to communicate beyond the information already given. Having costained them throughout the set, and not having seen them at any depth, we are only able to offer an opinion of the indications they present near to surface, which are of a highly favourable nature; and further as to their direction, from which we conclude, that the Great Wheal Maria lode passes through the north part of our set, and that those discovered in Wheal Benny are our extreme south lodes. A smith's shop, carpenter's shop, material house, office, and engine-house, are erected, and our surface work may be considered as nearly complete—so that henceforth, with some trifling exception, the monthly cost will be confined to actual operations underground, in sinking the shafts, and driving cross-cuts to explore the lodes.—J. TARR: July 13.

LANIVET CONSOLS.—The summen are engaged in driving north of Elizabeth shaft, at the 80 fm. level, as fast as possible to intersect the lode, and should the ground continue as favourable as at present, we shall accomplish it in a short time. We have cut through the lode at the 70 fm. level west; the leader part of the lode on the north is about 1 ft. wide, producing some good ore, and looks kindly; we are for the present driving on the south part of the level, the leader of which is about 2 feet wide, producing ore. In the 70 fm. level east, on the north, the leader, or ore part, is about 2 ft. wide, of hard yellow ore and capel; on the south part of the lode, at this level, the leader is about 1½ ft. wide, producing ore—this end is improved in appearance since last reported; we are sinking a winze on this level, which will ventilate it—and cut out tribute ground. There is little or no alteration in the tribute department since the setting. The new shaft, sinking on the north part of the mine, is down about 9 fms. from surface, is in a beautiful white and soft killas, which we all consider congenial, and has strong indications for mineral. We shall sample at Wadebridge, on Monday, about 195 tons of ore.

PENNANT.—Having been requested to accompany a gentleman practically acquainted with mining, and who was desirous of inspecting the Pennant Mines. I beg to mention, that I have again carefully examined the various lodes in the presence of that gentleman, as well as of two of the directors, and the captain of the mines, and am happy to say that the more I survey the mines, the more satisfied and confident I feel of the ultimate success, and the correctness of my previous reports. The works are going on very satisfactorily, and advancing rapidly towards cutting the first lode.—THOMAS KIRTO, Jun.: July 11.

STRAY PARK AND CAMBORNE VEAN.—In the rise, above the 70 fm. level, the lode is 15 in. wide, yielding 3 tons of ore per fm. In the 70 fm. level west the lode is 1 ft. wide, 2 tons per fm. In the 80 fm. level west the lode is 4 ft. wide, 4 tons per fm.; in the winze, under the 80 fm. level, the lode is 3 ft. wide, 3 tons per fm. In the 90 fm. level west the lode is 1½ ft. wide, 2 tons per fm.; in the winze, under ditto, the lode is 3 ft. wide, 5 tons per fm. In the 100 fm. level west the lode is 2 ft. wide, 1 ton per fm.; in the winze, under ditto, the lode is 2 ft. wide, 2 tons per fm. In the 110 fm. level west the lode is 2 ft.

wide, 3 tons per fm. In the 120 fm. level west the lode is 1 ft. wide, containing stones of ore. In the 150 fm. level west the lode is 1 ft. wide, 1½ tons per fm.; in the 160 fm. level east the lode is 2 ft. wide, 3 tons per fm.; in the rise, above ditto, the lode is 2 ft. wide, 1 ton per fm.; the lode in the bottoms of the 150 fm. level continues quite as good as ever—it is 4 ft. wide, yielding 10 tons of good ore per fm. The other tribute lode is looking, on the whole, very well.—R. EUSTICE; E. RALPH: July 13.—[We have remarked, when giving insertion to the monthly reports of Stray Park and Camborne Vein Mines, on the clear and satisfactory manner in which they have been furnished, to the London shareholders; and it is with feelings of pleasure we learn, that the adventurers here have expressed their highest gratification and satisfaction towards Mr. Vawdrey, the purser, and the managing agents, for the perspicuity displayed upon those occasions; and, in making these observations, we have the concurrence and desire of the London shareholders generally.]

SILVER VALLEY.—The engine-shaft will be sunk to a 40 fm. level in the course of the week, and the sumpmen will commence cross-cutting the lode at that depth on Monday next, the 20th inst. The lode at the 30 fm. level east is small and unproductive; the lode in the western end is 2½ ft. wide, consisting of quartz, blende, munda, and copper, with good stones of tin; in the winze, sinking below this level, the lode is 3 ft. wide, containing a little tin, with stones of yellow copper ore, of good quality. The lode in the 20 fm. level west is much improved—it is about 3 ft., spotted with tin throughout; as this end is driven several fms. beyond the 30, and as the laminated structure of the lode dips easterly, we are evidently approaching a new shoot of ore ground. I shall be glad to find, that if the tin is not more concentrated in this part of the mine, it will not be found so mixed up with other metalliferous ingredients of a similar specific gravity, the separation of which is accomplished with difficulty; the stopes, in the back of this level, are opening favourably—but the pitches, on the whole, are producing tinstuff of an inferior quality. At the silver mine, the lode in the back (rise) of the 40 fm. level is 2 ft. wide, consisting of carbonate of iron and munda in flookan, with spots of lead. I regret that the stopes, in the 20 fm. level, have produced only a few stones of silver ores, and the lode is become poor. At the 10 fm. level west the lode is 1½ ft. wide, showing traces of silver, with other promising indications. At Wheat Sisters, the men are still engaged in securing the adit level; this level has been driven upwards of 30 fms. further east than was represented to us; the lode in every part we have seen has a very promising appearance; the samples taken from this place contained silver, except the flookan. With regard to the dressing operations, the surface water is so much decreased, that what we now have is of little value to us. I fully calculated on being able to give you the value of the ore dressing, in this week's report, but owing to a large proportion of compact blende, and an unusual quantity of arsenical iron and sulphur being combined with the tin, we are compelled to recalculate a portion of it—hence the delay. The person superintending the dressing department is an experienced and competent tin dresser, and everything is being done to benefit the company. I commenced separating the earthy matter from the silvery part, of the small quantity of ore raised, this day; and immediately on its being crushed, the quality and quantity shall be made known to you.—J. PRINCE: July 13.

TRELEIGH CONSOLS.—At the 100 fm. level, east of Christie's, the lode has been rather disordered this week by a cross branch, but is worth 20½ per fathom; the 100, west of ditto, is on the cross-course. In the 90, east of ditto, the lode is 3 feet wide, worth 6½ per fathom—it has been rather poor through the week, at present better; in the 90, west of ditto, the lode is 1 ft. wide, rather improved, with stones of ore; in the 90, east of Garden's, the lode is 2½ ft. wide, worth 35½ per fm.; in the 90, west of ditto, the lode is 3½ ft. wide, worth 40½ per fm. The 80, west of Good Fortune, driving north, still in capels, all of which belong to the lode; we think right to drive through it. In the 70, west of ditto, the lode is 4 ft. wide, and more kindly, producing good stones of ore. In the 60, west of Symon's, the lode is 2½ ft. wide, worth 5½ per fm.—suspended in order to rise against the winze below the 50. In the 50 cross-cut north the ground much as last week; in the winze, below the 50, the lode is 3 ft. wide, worth 6½ per fm.; in the 50, west of Symon's, the lode is 2 ft. wide, worth 4½ per fm.; in the adit, west of ditto, the lode is 20 in. wide, no mineral; the west shaft, sinking in the country. We are now in course of sampling the ores, and cannot judge to a few tons of what the quantity will be. We have computed as follows:—Christie (best), 78 tons; halvans and coarse ore, 54; Good Fortune, 84—total, 216 tons.—W. SMOXES: July 11.

UNITED HILLS.—In the 90, east of Williams's shaft, the lode is 3 ft. wide, worth 20½ per fm.; in the 90, west of ditto, the lode is 2½ ft. wide, worth 25½ per fm. In the 80, east of ditto, the lode is 4 ft. wide, worth 12½ per fm.; in the 80, west of cross-cut north, we are driving to cut the north lode. In the 70, west of James's shaft, the lode is 2 ft. wide, poor; in the 70, east of eastern shaft, the lode is 18 in. wide, unproductive. In the 60, east of ditto, the lode is 18 in. wide, worth 10½ per fm.; in the 60, west of Harper's winze, the lode is 3½ ft. wide, worth 8½ per fm. In the 50 cross-cut south the ground is a little harder than last reported. At Wheel Sparrow and Wheel Charles, in the 50, east of Gibson's shaft, the lode is 2 ft. wide, not producing any ore. In the 40, east of ditto, the lode is 2½ ft. wide, worth 2½ per fathom; in the 40, west of Richards's shaft, the lode is 2½ ft. wide, worth 3½ per fm. In the 30, west of ditto, the lode is 2 ft. wide, worth 9½ per fm.; in the winze, under the 30, west of Richards's, the lode is 18 in. wide, worth 10½ per fm.—THOMAS TREVENEN; ROBERT WILLIAMS: July 10.

WEST WHEEL JEWELL.—In the 115 fm. level, east on Wheel Jewell, the lode is 16 in. wide, producing some ore. In the 100, west of ditto, on the same lode, the ground is hard for driving—lode 1 ft. wide, not looking so well as when last reported. The winze in the bottom of the 85, east of Hodges's cross-course, on the same lode, is holed to the 100 fm. level in the past week; the men have commenced driving east on the 100 fm. level and 80 fm. level, on the same lode; in the 85, west of ditto, on the same, the lode is 2½ ft. wide, worth 8½ per fm.—ground more favourable for driving. In the 12 fm. level, east on Wheel Jewell lode, the lode is not taken down in the past week; in the 12 fm. level, east of quarry shaft, on Tolcarne tin lode, the lode is 18 in. wide, worth 8½ per fm.; in the 12 fm. level, west of ditto, on the same lode, the lode is 2 ft. wide, worth 18½ per fm. No alteration in any other part of the mine since our last report.—R. JONES: July 13.

WHEEL AGNES.—The men stoping are getting down near the water, and I thought it best to suspend stoping any further until the adit is in to intersect the lode, which I expect will drain off the water. I have put the men to open on the lode where we cut it 40 fms. further north—it appears to improve; the lode is 2 ft. wide, good work. The men in the adit have driven 14 fms.; I expect there is about 3 fms. further to drive to cut the lode, according to the underlay I have seen.—B. ROBBINS.

WHEEL CONCORD.—You will have been informed, by a letter from Walter Weekes, Esq., of a great improvement in the mine, which is of no little consequence. I went there yesterday, and found that on driving east on the lode, at the 10 fm. level, they came in to a small branch of lead, which continued to increase in size, and is now full 2 ft. wide, and still increasing in size, as the miners are not yet come to the south wall of the lode. The whole of the lode as far as it has been seen, is saving work; but, by the side of the north wall the lead is very pure, and is taken, upstones, weighing from 1 cwt. to 2 cwt. in a stone. The lode also appears to be increasing in size, as it goes down, which of course is a very favourable appearance. I could have sent you up a stone of lead, yesterday, nearly 2 cwt.; but am waiting to see if I cannot get a larger one by Monday—viz: the stone to be in London on that day. This discovery is about 6 fms. east of the cross-course, in virgin ground—the former adventurers never having opened this part of the sett. About 10 fms. further east than this discovery, an air shaft is now sinking, to take the lode at the 10 fm. level, and I have no doubt, but it will go down on a portion of the same bunch of lead. We shall then be able to raise lead in great abundance, and bring it up this new shaft at a trifling expense. I hope this air shaft will be down to the lode in about a fortnight. It is impossible to say at present what is the value of the lode at the present level, but I should calculate from 50½ to 70½ a fm. No such discovery has been made on this mine since the old adventurers cut into the bunch on the west of the cross-course, from which they sold 10,000½ of ores.—July 16.

WHEEL MEXICO.—I have, in conformity with your request, examined the silver lode at Wheel Mexico, and paid particular attention to the nature of the cross-course at the 20 fm. level—the effect it has had on the lode, &c. It will not, I presume, be necessary for me to enter into particulars relative to the composition of the lode at the different levels, either at a great distance from, or contiguous to, the cross-courses; but, rather, to make a few remarks on the point to which you have called my attention—viz., the non-discovery of the lode at the 20, west of the western cross-course. In the first place, the small and very irregular vein on which the level is extended west, at the 20, is not Wheel Mexico lode, but merely a branch split from it, and which will be found to have dwindled to a mere thread, both horizontally and diagonally; indeed, for the last 28 fms. driving, previously to intersecting the cross-course, there is not the least appearance of a lode. The main lode may be seen in the shaft, 11 fms. south of the small vein; this lode, at the deep adit, is above north about 5½ fms., and it is highly probable that the cross-course has had a similar effect on it at the 20 fm. level. Should the lode and small vein, therefore, be found to run parallel (which should be ascertained at once by dialling), the distance to drive south on the cross-course, to discover the former, would be about 5½ fms. only. The winze in the deep adit is being sunk on the course of the main lode, where there are favourable indications to the production of silver, but the water will soon retard, if not compel you to abandon, the operations here; and the cheapest, and most expeditious way of proving the lode, is to drive south on the cross-course at the 20, where I have not the least doubt but that you will find silver.—J. PRINCE: Callington, July 2.

We have commenced driving south on the cross-course, which we find, at present, composed of flookan, interspersed with munda—the killas being light blue. Some of the lode in the winze has been saved, which it is our intention to assay for silver. We have just sold nearly 1½ ton of silver ores, at 14½ per ton, and 41 ozs. of fine silver, at 5s. 2d. per oz.—thus realising about 27½.—W. KNOTT: July 13.

WHEEL WALTER.—Having been desired to give an opinion on this sett, I beg to hand you the following report:—“The sett which is nearly a mile square, is situated in the parishes of Lamerton, Milton Abbot, and South Sydenham, in the county of Devon, held on lease for a term of 21 years, at 1-15th dates or dish. The lodes, which have so far been discovered, are named alphabetically, so as to distinguish the different lodes. A lode was first discovered in a bottom; and as it was rather an inconvenient place to make trial of it, they are now driving a short cross-cut to intersect it in the hill, which they will no doubt do in a few days, when more will be seen of it. About 20 fms. north of this lode, is B lode, which is from 12 to 14 ft. wide, composed of gossan, sugary spar, and flookan, and is a fine bold kindly lode, in driving on the course of this lode to hill, they will get some 8 or 10 ft. deep, where it is very probable they may get some bunches of lead, as some has already been seen in the flookan, and in depth, I have no doubt, they will get large deposits of lead. About 20 fms. further north of this, is C lode, which from appearance and size (it being upwards of 30 fms. wide); I have never seen anything to equal it as a lead lode, it being composed of gossan, sugary spar, flookan, &c., and also in such congenial ground for lead; it leaves no doubt in my mind, but there is an immense deposit of lead in depth; there are other lodes in the valley—viz: D and E, which of course adds to the value of the sett; but the B and C lodes alone, are quite enough to warrant any outlay necessary for prosecuting the mine to a very considerable extent, and I really believe that a vast profit may be realised therefrom.—JOHN WILLIAMS: July 9.

FOREIGN MINES.

IMPERIAL BRAZILIAN MINES.—Gold workings from 24th April to 2d May, 14 lbs. 8 oz. 16 dw.

ST. JOHN DEL REY MINES.—Morro Velho, May 8.—Produce for April, 14,242 oits.; plus from Cata Branca, 208 oits. (old washings up)—14,450 oits., equal to 138,772 lbs. troy. The 14,242 oits. were from 2704 tons of ore equal to 5,265 oits. per ton. There were rejected during the month 408 tons of inferior ores. This result quite meets my ideas of what picked ores ought to yield; indeed, taking into consideration our low estimate of the Gamba ores of 8-12 oits. per ton (and 325 tons were stamped), the yielding per ton on the whole quantity stamped has surpassed what experience would have led me to anticipate; for, in 1843, the Gamba ores yielded about 5½ oits. per ton, and, consequently, they tended to raise the average standard, whereas they now have the contrary tendency; the present high standard is assignable to the United Mines, from which 1545 tons have been stamped, and they have yielded 5,805 oits. per ton; and yet you will observe, by the mine tracings, that at least as many square fathoms along the length of the United Mines have been taken out westward as eastward—that is, the mine could not have been worked more fairly over. But, undoubtedly, in proportion, more cubic contents of known good ore have come from the gut and bunch, because the lode there is wider than from the western part of the mine, where the lode is narrower and poorer. Still, as I have said above, the whole stoping area of the lode has been worked down in fair proportion, as the tracing of the United Mines shows. Capt. Treloar estimates, that 600 tons of ore have been extracted from the gut, which, after all, is only about two-fifths of the whole quantity supplied by the United Mines; and we never, in the separate stamping of 1843, made the best ores of the United Mines yield more than 6½ oits. per ton—so that the 5½ oits. of an oit., which the gut ore may be richer, is not sufficient to account for the whole standard being raised to 5-8 oits. per ton. All that can be said is, that the yielding of the United Mines is very satisfactory. The Cachoeira have, per estimate, yielded 4,999—say, 5 oits. per ton; but it is likely that the Gamba ores deserve a little more credit than has been given to them—indeed, Capt. Treloar thinks they have been better looking of late. *Mine Report for April:*—The Bahu sump shaft has been very little sunk during the month from various causes alluded to in the report; but it is most important to keep this sump well down, as the supply of ores from the United Mines depends on this being accomplished: Capt. Treloar is quite alive to this circumstance. The chief point of interest is the Cachoeira shaft, which has been well worked down; but the nearer it approaches to its proper horizon, the more difficult it becomes to work away—its flatness not allowing of the same facilities for blasting the ground. You will see by the report that Capt. Treloar is vigorously pushing on the work in this part of the mine. Cost for April, rs. 30,748 16s.—this is by no means satisfactory; the four months of the present year have averaged rs. 1434 87s per month beyond my estimated cost. I reckoned the first four months would be the highest, because the Bramado blacks leave us on the 1st of next month, and their present monthly cost is rs. 1011 49s for hire alone, without their keep and consumption of materials; still, independently of this, the cost is high. Timber has cost rs. 1552 140 purchased, besides rs. 1161 75s for carriage of timber and materials from Cata Branca, has cost us nearly the entire of these two amounts rs. 2713 890. It is true, it forms a supply much beyond our current expenditure of this article; but it falls very heavily on one month's cost, and I feel obliged to let the thing run its course, under penalty of destroying the supplies which it has taken years to organise.

WHEEL BENNY MINING COMPANY.—A meeting of the adventurers was held at Goulding's Hotel, Callington, on Saturday, the 11th inst., when the accounts were submitted and passed.—A report from Capt. Thomas Penultima was also read, which was in effect, that a water-wheel can be erected of 50 ft. diameter, including cost of wheel pit, &c., at a cost not exceeding 2200. Forty-four fathoms had been driven on the cross-course south, but the lode had not been intersected—not underlying so fast as was contemplated. This lode is distinct from the two lodes already cut, and others discovered in the sett. It is, however, expected that it will be seen in driving another 6 fms. The present end is 40 fms. from surface—so that there will be a considerable extent of backs; 16 fms. had been driven on the Benny lode, the average size of which was 2 ft., composed of capel, munda, and ore, with a kindly appearance; the whole of the sett had not been proved by costeaning—there remaining 400 fms. of unexplored ground.—A discussion ensued as to a proposition which was submitted, of disposing of the entirety of the mine, or a certain number of shares, so as to give the majority to the incoming adventurers, when it was resolved.—That the price be fixed at 10½ per share, or 2560½ for the mine.—A further call was postponed, and instructions given to Capt. Penultima to proceed with certain works; it being understood that the clearing up of the old engine-shaft, which is said to be 18 fms., should be deferred until some measures were taken for obtaining water-power, or making arrangements with other parties.—The meeting was fully attended.—Some remarks in another column, in a report on the mine, will be found to contain some details as to the mine itself and the nature of the operations.

WHEEL NORRIS MINING COMPANY.—At a meeting of adventurers, held on the mine, on the 10th inst., the accounts were submitted and passed—from which it appeared, that the receipts on calls and balance from last account of 29½ ss. 8d. had been 325½ ss. 8d.; and the cost for five months (Jan. to May), had been 394½ ss. 8d.—showing a balance against the company of 69½ ss. 10s.; while there were arrears of calls unpaid amounting to 88½.—It was resolved, that a call of 1½ per 256th share be now made for the further prosecution of the mine, payable immediately; and that the solicitor be instructed to institute legal proceedings forthwith against defaulters.—The following report, from Capt. J. B. Clymo, the agent, was read to the meeting:—“Since our last general meeting, we have completed the sinking our engine-shaft to the 35 fm. level, and have finished fixing the pit work and timber work to the bottom. We are now driving south towards the main lode, with all possible expedition, having extended 3 fms.; the stratum is hard granite, impregnated with fluor, and particles of copper ore; this we consider congenial for riches in the lode before us. By driving this cross-cut 7 fms. further, we expect to intersect the lode; this work we anticipate to accomplish in about three months from the present time. Our cost, whilst this work is in progress, will be about 60½ per month, which we have now to provide for, as well as a balance of 69½ ss. 10s., now lying against the company. It is evident, therefore, that we should make a call sufficient to place us in a position to cut the lode, and drive a short distance on it. I can only say, in conclusion, that our good opinion of success, when we open on the lode, remains unaltered.”

WHEEL HOLWELL.—This sett situated in the parish of Stoke Climsland, Cornwall, about a mile north-west of Lameroo Wheel Maria, lately opened, in which five lodes have already been discovered, which give great promise of making abundance of ore in depth; they consist of fine gossan, priant, soft spar, and munda, the strata is of the most kindly description, and, in general, the appearances are considered superior to any discovery made westward of Wheel Maria. The mine is divided into 2048 shares, deposit 80s. per share, will be worked on the cost-book system, and a finance committee will be chosen from among the shareholders at their first meeting, whose services will be gratuitous.

PRINCE EDWARD MINE.—This is also a new sett, situated on Tremollet Down, in the same parish, about a mile west of Wheel Holwell, and extending 1036 fms. from north to south, and 670 fms. from east to west; several lodes are known to exist, some of which have been partially opened by costeaning, and one large gossan lode is of much promise; these lodes generally do not run parallel, but at different angles, and thus in different parts of the sett intersect each other—a good feature; as at those intersections large deposits of ore are generally found. The mine is also divided into 2048 shares, and worked on the cost-book system, with a managing committee similar to the above. Mr. Crofts, of 4, King-street, Cheapside, is the secretary, and full particulars will be found in our advertising columns.

CHATHAM NICKEL AND COBALT MINE.—Nickel, from its great scarcity, and the place it has taken in our manufactures in the formation of an alloy, as a substitute for silver, besides being applied to various other purposes in the metallic arts, has become a valuable and important metal. Its produce, as a commercial metal, has hitherto been confined to some valuable mines in Saxony, which (now at a depth of 450 ft.) are said to be declining in produce, whilst the cost of production has been greatly increased. At Chatham, in the state of Connecticut, there is a mine of cobalt and nickel, first discovered and worked by some German settlers, for cobalt; but finding that nickel greatly prepon-

derated—a metal whose properties were then unknown, and for which there was no market—the mine was abandoned. It afterwards became the property of Governor Seth Hunt, who, after about three years' exploration, during which period he obtained a considerable quantity of cobalt, abandoned it from the same cause. The strata in which the veins are situated is a soft mica slate formation, of the same kindly nature as those which occur in the valuable mines of Saxony, being much softer near the lode, which is always considered a promising feature. Captain R. Williams, of Cornwall, who went to the United States for the purpose of reporting on this mine, with all the American geologists and miners who have visited it, agree that there can be no doubt as to the lodes continuing, or even improving, in depth; and, from the present commercial value of both metals, the judicious working of this mine cannot but be attended with the most profitable results. In addition to the cobalt and nickel lode—which has been worked to a distance of about 170 fms., but in no place to a greater depth than 60 ft., yielding ore of 15 per cent.—there is a large lode, which has only been seen at surface, but which gives every indication of making copper in depth. A company is now formed for reworking these mines, and, from the formation of the ground, rising to 900 ft. above the River Connecticut, giving the most extraordinary facilities for mining without the cost of machinery, with a water-course sufficient for stamping and dressing, a very small capital will suffice to bring the mine to work, and make immediate returns. Steam-boats from New York to Hartford pass the spot daily, so that shipments for Liverpool can be made at the lowest possible cost; and, taking every circumstance into consideration, it appears a highly promising speculation. It is proposed to make the nominal capital 20,000½, in 4000 shares, of 5½ each, but it is considered that a deposit of 1½ per share will be ample for bringing the works into successful operation. The address for reference in London will be found in our advertising columns.

LAMEROO WHEEL MARIA.—The setting to work of the engine (60-inch cylinder), lately erected on this mine, by Messrs. Hocking and Loam, was celebrated on Monday last, by a fête, which may vie with any which have preceded it in Devon, or the adjoining county of Cornwall—being graced by the presence of several ladies, who appeared to take much interest in the enlivening and festive scene. Upwards of 60 assembled on the occasion, amongst whom we noticed J. E. Campbell Koch, Esq., who ably presided at the festive board, as the representative of the adventurers, supported by J. Crofts, Esq., the secretary; G. W. Snell, Esq., the purser; Mr. Loam, engineer; and Capt. Tabb, the superintendent and resident agent of the mine. Among the visitors were G. Hay, Esq., the Mayor of Callington; W. Weekes, Esq., Capt. W. Williams, of Wheel Friendship, H. Snell, Esq., Capt. J. Williams, W. Snell, Esq., J. Woolley, Esq., R. Pearce, Esq., and others, including T. Tregaskis, Esq., and J. Carnell, Esq., representing the Perran Foundry; R. Fox, Esq., of the firm of Bayley and Fox, of Plymouth; and Mr. G. Keen, of the Plymouth Foundry; indeed, the company may be said to have embraced most of those who were calculated, by their presence, to add weight and respectability to the assembly. The usual loyal toasts were followed by the hearty congratulations of the party on the completion of the works at surface, and the prospects held out by the cheering reports of the agents on the discoveries already made, and the nature of the several workings, while the certainty which was assumed of the Great Wheel Maria lode passing through the sett, and the late discovery at Wheel Williams, tended to augment the pleasure derived. The chairman, in an eloquent address, expressed the gratification he had derived from an inspection of the works—observing, that, while the adventurers had not been chary of the “needful,” every exertion had been used by the agents, and more especially by the engineers, to accomplish the completion of the engine and the several works in a given time; indeed, when he looked around, and witnessed the work which had been effected in so short a space of time—some three to four months—he could not but congratulate himself and his co-adventurers. The worthy chairman proceeded, at some length, to point out the advantages calculated to arise in mining pursuits, from the combination of wealth with talent. He did not profess himself to be a practical, or even a theoretical, miner, but he was a sufficient observer to be able to judge of the activity which had prevailed in all the various operations. He considered that, with a London management of finance, and an active and efficient practical management in Cornwall, much good was to be achieved from the amalgamation arrived at, by the adoption of such system. He begged to assure the company, on the part of the absent adventurers, with whose interests he was so closely allied, that but one feeling pervaded their minds, that of satisfaction in having embarked their money in an adventure which, he was proud to say, held out so much promise.—The chairman was frequently cheered in the course of his eloquent and well-timed address. The health of J. Crofts, Esq., the active and intelligent secretary, was drunk with due honours, and responded to in an efficient and chaste manner; that gentleman observing—that he was anxious strictly to observe the duties which pertained to the office he had the honour of filling; at the same time, paying a high compliment to G. W. Snell, Esq., the purser, and Captain Tabb, the resident agent, for their untiring efforts in promoting the objects of the adventurers. The healths of those gentlemen having been drunk, some able addresses followed, in acknowledging the honour conferred. The chairman, in a forcible address, referred to the obligations he felt the company were under to Messrs. Hocking and Loam—one of whose firm was present—and who, in an able manner, entered into a description of the engine, and the nature of the work which had been confided to him. The healths of Capt. W. and J. Williams, as the consulting agents, were also drunk, and which were acknowledged by those gentlemen in fitting terms. The health of the “Editor,” and success to the *Mining Journal*—and also “The welfare and comforts of the working miner,” were among the toasts which were received with pleasure—the one being acknowledged in *propria persona*, and the latter by Capt. W. Williams. We need hardly say, the ladies found an able representative in Mr. Geo. Hay, who returned thanks on their behalf; and, after a pleasant day, the company separated, apparently well pleased with each other as well as with themselves; and that which, in the eyes of many, was no less interesting or important, the *bal* itself.—The miners were not forgotten, while one and all testified their respect to the donors of the feast, in complimenting the chairman as their representative.

TIN MINES.—A meeting of pursers, agents, adventurers, and others interested in tin mines, was held at Penzance on Thursday last, the 16th inst., for the purpose of considering the propriety of making such arrangements for bringing their produce to market, that no leavings of other tin, or small parcels or parcels of any kind shall for the future be at the disposal of any of their workmen; and that when such arrangements shall be complete, notice be given to all smelters, that they may not lawfully receive any parcel other than such as may be sent on account of the adventurers of the said mines.

TICKETINGS—SMELTERS' AGENTS.

TO THE EDITOR OF THE MINING JOURNAL.
Sir,—I observe at the ticketings at Redruth an encroachment on the rules laid down for the smelters' agents—viz: they are paid 10s. 6d. each to get their dinners out of the room, wherever they please; for some time this rule was observed, but latterly I find several of the smelters dining in the room, and saving the 10s. 6d. These people are extremely well paid; they get from every mine, within seven miles of Redruth, 10s. 6d. each sampling, and 2s. 6d. each parcel weighed off; and from every mine, at a greater distance than seven miles, they receive 21s. each sampling, and 5s. for every parcel weighed. The person appointed by the mines to protect their interest is an invalid, and the duties are attended to by a relative; and I think a brief notice in your valuable Journal will have the effect of calling this gentleman's attention to the subject, and discountenance such conduct in future. A LOVER OF FAIR PLAY.
Queen-street, Cheapside, July 15.

FROM CORRESPONDENTS.

CALLINGTON MINES.—These mines are making a satisfactory progress, and an immense quantity of ore ground is developed between the north and south shafts; the ore is sometimes found in small branches, and is very rich for silver. The company have paid two dividends, each of 1½ per share, and will very probably make a third, as soon as the steam-stamps engine is completed. It must be borne in mind, that an immense quantity of work has lately been done here, and a new drawing shaft has been sunk to a great depth—a work which was absolutely essential to the future economical drawing of the ores. It seems they are also proving two copper lodes, which they anticipate will be found productive to the east of the cross-course, because a similar result happened at Holmush Mine, which adjoins the sett. Much has lately been said about the expenses attending the directorship of the company; and although it must be admitted, that a right system of economy, is of vital importance to the well being of mines, whether at home or abroad, yet this, when properly considered (and the remark is applicable also to railroads), is an item of small importance, when compared with the high standing of the directors, their ready payments, and judicious management, several hundreds per annum being easily saved by a prompt liquidation of debts, and by a close and frequent inspection into the various workings of the mine. Without wishing to make invidious comparison, the Callington Mines and Wheel Trelawney may, at the present period, be pronounced to be the best mines in the county next to East Wheel Rose.

HARROWBARROW CONSOLS MINING COMPANY.—A meeting of adventurers was held at Plymouth, on Friday, the 10th inst., when it was resolved to suspend all further operations, until the lodes in Old Harrowbarrow Mine were more satisfactorily explored.

TRENOW CONSOLS.—A most extraordinary proceeding, on the part of the individuals engaged in it, commenced at this mine, on Monday, the 22d ult., and was persevered in for some days, much to the annoyance and hindrance of the men, and to the loss of the shareholders. It appears, from the statement we have received, that on the above day, a person, calling himself Frederick Thomson, Esq., barrister-at-law, and Mr. Allan Johnson, came on to the mine, and passed a paper on the capstan, signed by Dr. Johnson, stating that he had that day revoked the lease granted to the Trenow Consols adventurers, in the names of Messrs. Bennett and Hopson; and that all persons, after such notice, found on the mine, would be prosecuted for trespass. They then ordered the labourers

to cease working, gave them 5s. to drink, and promised them a good dinner as soon as the affair was settled; the money, however, was given up to Dr. Johnson's servant, who immediately brought a large bottle of brandy, which he served out to those who would drink; and it is evident that attempts were made, both by threats and promises, to seduce the men from their employers, as a preliminary step to getting possession of the mine. That night Dr. Johnson's servant kept watch on the premises, and the next day, being sampling-day, a mob was collected, the sampling prevented; and it appears to have been entirely owing to the coolness and firmness displayed by the agents of the Trenow adventurers, knowing they had justice on their side, that a severe contest had not taken place, when, from the number of tools and dangerous implements lying about, it is probable life would have been sacrificed. Having applied to a neighbouring magistrate for 10 warrants for pretended assaults against the Trenow men, which he refused to grant; and Mr. John, solicitor of Penzance, attending, and giving Thomson (the would-be barrister) a severe lecture, the parties seem to have given up the affair. We have given these facts from an official statement made to Mr. Hill, the solicitor of Penzance, and can only say, that a more extraordinary encroachment on property, without any legal notice, we never heard of; and trust the adventurers will not fail to take the necessary steps for punishing, to the utmost, such a flagrant attempt to obtain possession of a mine, which, had they done, they would, no doubt, have trusted to the glorious uncertainty of the law for the result.

WHEAL BENNY.—Two or three lodes have been opened upon in this set, of kindly promise, and an old shaft is now being cleared up. The lodes take a direction 8° or 10° south of east, underlaying north. There are several lodes in the set, which is extensive. We have reason to believe, the mine will change hands—there being a meeting of the adventurers convened for this day (Saturday), to take into consideration a proposition made. The sett, from its immediate contiguity to West Wheel Williams and Lambrook, is one of good promise, and holds out encouraging prospects.

WHEAL WILLIAMS.—A discovery has been lately made here; the lode, which is now sunk on 9 or 10 ft. below the shelf, yielding ore of rich produce, and with every appearance of its continuing in depth. We congratulate the infant Duke of Cornwall on the success attendant the operations of those who have undertaken to develop the mineral resources of the district, but more especially this particular sett—the liberal terms of 30 per cent. of the "profits," in addition to 1-12th dish, being his Royal Highness's trifling proportion of the benefits to be derived from working the mine. We need hardly add, the adventurers bear the costs.

WHEAL SPEARNE TIN MINE.—This mine, situated in St. Just, Cornwall, adjoining the high and productive mines, Levant and Botallack, has been worked for a series of years, and a considerable sum of money has been expended; but, for want of proper attention and care in the management, the mine did not leave that profit to the adventurers which was fully anticipated. About the year 1889, the mine was sold; and the company who bought the concern expended something like 1280l., which includes purchasing the mines, materials, &c. The mine now stands on the north part 80 fms. below adit level; there is a pair of men driving the end for 5s. in the 12—lode here from 8 in. to 10 in. wide—very rich for tin; in the south part of the mine a shaft has been sunk from surface, and reached 151 ft. for sinking. This shaft is now about 40 fms. below adit, and continues productive as hitherto; the levels, driving east and west, are rich for tin. The two pitches, set under the 40 ft. level, in the whole ground, have been set at the last survey held on the mine—one for 6s. in the 12; the other for 6s. 8d. in the 12. There is still other lodes, both north and south, which have not been seen by the present adventurers; yet, from the appearance, the mine will be, according to the magnitude of the concern, one of the best now working in Cornwall. The mine, for a considerable time, has been making large profits to the adventurers, and still continues to do so, and, with propriety, may say more. The erections on the mine consist of a steam-engine, steam whim, horse whims, and every other necessary building. This mine has, under the present management, been working about seven years.

COFFEY LODE AT PHILLACK.—A rich copper lode has lately been discovered on Coffey estate, Phillack, the property of Mr. Richard Nicholls of Treglission, nearly midway between the Herland and Great Wheel Alfred Mine. It is at the adit level, about 24 fms. below the surface. The lode has been inspected by several old and experienced mine agents, and they have stated that it is the best they ever saw at such a depth. The outlay of the adventurers has hitherto been trifling; and some have sold shares for 100l. per 250th share; the selling price is now 150l. for 1-250. An engine is to be immediately erected, and the mine is to be called the "Alfred Consols." It is to be hoped the spirited adventurers will be well remunerated.

NEGLECT OF SERVICE—IMPORTANT TO MINERS.—At the Police Court, on Monday last, three miners, named Noah Brettell, Thomas Cartwright, and William Holden, came before the bench, in answer to a summons charging them with neglecting to serve Thomas Gould. From Mr. Gould's statement, it appeared that he was a butty collier, and worked a pit at the Corngrange Colliery. The defendants were engaged by him to work the mine; and it was understood that 14 days' notice was to be given before the determination of the engagement on either side. On Saturday morning last, the three defendants came up with nine others, and refused to work. They went to the other nine, who were working 300 or 400 yards from them, and persuaded them to come up. The defendants, in explanation, said, that while absent from the pit, the doggy had gone down and altered their work. Their measure was 2 ft. wide, and he had made it four or five, thus leaving them extra work to do in holing the part where he had been working. Gould said the loose end had been taken off to let a boy with a basket, and air through. The doggy refused to answer the bench as to whether the alteration was better or worse for the men, and they were recommended to settle the matter out of court, which they did.

MINE ACCIDENTS.

East Wheel Rose—Appalling Accident.—A catastrophe of a most awful and unprecedented nature occurred at the above mine, on Thursday week, by which 39 individuals have been hurried into eternity. This mine, which has proved as extraordinarily rich in silver-lead, as Wheel Maria has in copper, runs north and south through the middle of a natural amphitheatre, surrounded on all sides by hills, except a narrow ravine on the north, which had ever proved sufficient for the outlet of the surface water. About one o'clock on the day mentioned, dense thunder clouds gathered around the hills from the north-west, and a storm came on in a few minutes, as terrific as has ever, perhaps, been seen in this country; the thunder roared—the lightning, in the most vivid flashes, lit up the murky atmosphere—and the rain poured down in such solid streams, and rushed from the surrounding hills in such impetuous torrents, that the only outlet being no longer able to conduct the accumulating waters from this natural basin, they rushed into the shafts of the mine, and in an incredibly short time filled it from the bottom (100 fms.) up to the 50 ft. level, which has been driven on about one mile. At the time of this extraordinary flood, there were upwards of 200 men and lads in the mine; and, of course, every possible exertion was made by those at surface to rescue them: clusters of them were saved by hanging to kibbles and chains lowered for the purpose; but, after every effort, it appears 39 were left in their watery grave. In addition to this awful loss of life, the works have sustained most severe injury, the rush of the waters carried away the timbers which supported the levels, which, from the superincumbent pressure, and the friable nature of the country, fell in, forming a large and deep pit on the surface. The rush of wind in the levels, caused by the inundation, blew out the men's candles, and they were thus obliged to grope out in the dark their way to the shafts, or, probably, many more would have been saved; four men of those saved did not escape from the upper levels until the next morning. The mine was paying 2500l. a month for labour only; and the greatest affliction prevails in the district, from the great loss of life, and the fear that a great portion of the works must be suspended. The adventurers and agents are using every exertion to recover the bodies, to give the last sad consolation to the survivors, and also in taking steps to ameliorate the condition of those who have thus been suddenly deprived of their only means of support. [Since writing the above, we have learned that, up to Wednesday evening last, 26 bodies had been recovered, and 13 still remained in the mine; the water was reduced to about the 70 ft. level, and it is probable those parts of the mine which are uninjured will be immediately again in operation. It is most gratifying to observe, the general enthusiasm which prevails to relieve, to the utmost, the distress of the survivors on this sad occasion; the adventurers, in the first instance, provided for the funeral expenses; and on Tuesday last, a committee meeting was held at Truro, when it was resolved, that 500l. should be devoted to the relief of the sufferers. The Bishop of Exeter, on hearing of the accident, immediately wrote to the vicar of Newlyn, offering a large contribution for himself and sons, and desired him to afford immediate assistance at his expense. A general subscription has commenced under the most favourable circumstances; and most happy shall we be to aid the cause by receiving subscriptions at the Mining Journal office, 26, Fleet-street, for the London district, which shall be duly forwarded to the Cornish committee; with the names of donors, which will then be inserted in the general list to be published in the papers.]

Wheal Gray, Gernoe.—W. Piper, aged 8 years, was killed by a fall of rubbish. **Wheal Pollice.**—A miner, named Jenkins, had his legs crushed by the falling of a scale of ground. **Balkenvidden Mine.**—A young man, named Grenfell, was very seriously hurt at this mine; it appears that during the time which elapsed from his leaving work on Saturday, till his return on Monday, a "scale" of ground had fallen away, so as to weaken the stays of a ladder Grenfell had to descend, and which fell with him immediately on his entering it. **West Hoe Quarries, Derbyshire.**—J. Mitchell was killed by a fall of stone. **St. Helen's.**—P. Tomlinson was killed in a colliery at Parr Stock. **Rochdale.**—G. Wild was killed by a fall of roof at Nook Colliery, Wardleworth.

Brockmore, near Dudley.—A miner, named Southall, was killed by a fall of mine-stuff, in Messrs. Cochrane's colliery.

Dudley.—A miner was killed by a fall of coal in Messrs. Attwood's pits.

Mayport.—J. McGill was killed by the falling of a large block of metal.

Delabole Slate Quarry.—J. French was struck by a stone and killed.

West Bromwich.—J. Brown was killed by a fall of coal in Mr. Horton's Colliery.

West Bromwich.—W. Lawton was also killed by a fall of coal in one of Messrs. Cresswell and Son's pits.

Awful Accident, and Presidential Escape.—A serious accident happened in Mr. Fletcher's pit, in Hawke's-field, at Cinder Bank, near Netherton, which might have been attended with a terrible loss of human life. It appears, that about 9 or 10 o'clock the gate road of the pit fell in, burying and almost suffocating 13 or 14 men. On the circumstance becoming known, a great concourse of people assembled upon the bank, and rendered every assistance. About two hours, however, elapsed before the men were released from their perilous situation; but we are happy to say that they were all got out alive, though they appeared to have suffered dreadfully from fright, and the apprehension of being entombed alive.

Terrible Explosion and Loss of Life in a Belgian Coal Mine.—An explosion of coal damp took place on Thursday last, about half-past four in the evening, at the mine of Ougre, which has cost the lives of four men and two children. This accident is attributable to the imprudence of a workman, who fired a charge in one of the cuttings without sufficiently assuring himself of the absence of all explosive gas in the mine. On Friday morning, at 3 o'clock, four men and one boy had been drawn up to the bank.

WATER GROOVE LEAD MINE.—This celebrated mine, the richest, perhaps, in England, is now being worked actively. The water, which at intervals stops the working, is now very low, and the metal got is immense.—*Sheffield Iris.*

THE COPPER REGION.—The stories which reach us from the copper region on Lake Superior, almost daily startle our credulity, and were it not that we have seen some of these large masses of native copper, we should find it difficult to credit them, however well authenticated. A gentleman from Zanesville, now on his way to Lake Superior, thus writes from Detroit, on the 28th of May:—"The explorations on Lake Superior prove that it is, beyond compare, the richest copper region in the world, and four or five veins have thus far been discovered which contain silver in sufficient quantities to render the mining highly profitable. Some of the copper ores carry with them 10 per cent. of silver, which would make its commercial value between \$4000 and \$5000 per ton. The explorations during the past winter, I learn, have been highly satisfactory. One day last week a boat took down about \$50,000 worth of copper and silver ore belonging to the Pittsburgh company, destined for the Boston market. The Boston and Lake Superior Company (Eagle river) have struck a vein which is represented to be very rich in silver. The Copper Falls Company, you will recollect, uncovered a mass of native copper last winter some 13 ft. in length, which proved a very serious obstacle to the prosecution of their work. The Eagle Harbour Company, on the adjoining location, have met with an obstacle still more serious. They have come to a mass of native copper which serves as a brazen barrier to all further operations, at least for the present. They have 'drifted' longitudinally about 19 ft., without finding its length; they have sunk down about 4 ft. in places without finding its depth! Its average thickness is about 18 in. The mass thus far uncovered is estimated at about 90 tons, and its commercial value, when raised and smelted, will exceed \$25,000. This seems almost incredible, and yet it is literally true. Nothing in the previous history of mining operations can compare with this. The Ontonagon copper rock, weighing about two tons, was regarded as one of the wonders of the world, and yet, between that mass and this, the difference is as great as between a mustard-seed shot and a cannon-ball. The company propose erecting a steam-engine for the purpose of sawing this immense mass into blocks, and thus raising it from the mine. I saw some of the fragments, or rough 'strings,' that were cut off from the exterior, and, with the exception of an occasional admixture of spar, it resembled more the product of the furnace than the mine.—*Toronto Patriot.*

SPECULATIONS IN IRON—FORTUNES MADE AND LOST.—The rise in the value of the great staple, iron, has been one of the features of the present railway movement; but this was little more than expected, seeing the close connection of the two interests. The depression that before existed in this branch of trade, and the low prices which ruled, soon induced buyers to operate freely; and the lever being applied both in London and Liverpool, a rise shortly followed, exceeding in extent the greatest anticipations of the holders. From the success of the speculation in iron, many men with crippled fortunes have established themselves in a permanent position. Some few have suffered from the good fortune others have attained, by a movement of which they were the originators; and others, having cleared the market at the lucky moment, have risen from small means, and retired with a comfortable competency. Nothing can better illustrate this statement than the fact, that a bankrupt Scotchman, who came to London two years back as a jobbing commission-agent, has gone "V.P." other side of the Tweed" with about 30,000l., the proceeds of the little business he transacted in iron, rather preferring to live in quiet enjoyment than trouble his mind further with the anxiety of commercial concerns. The reverse of the picture can be exhibited, and not in a solitary instance. The late advance of from 120 to 150 per cent. in the value of the article, is a range of fluctuation illustrative of the extent of dealing in it.—*The City.*

Current Prices of Stocks, Shares, & Metals.

STOCK EXCHANGE, Saturday morning, Twelve o'clock.	
Bank Stock, 7 per Cent., 906 1/2	Belgian Bonds, 4 1/2 per Cent., 97 1/2
4 per Cent. Reduced Ann., 95 1/2	Dutch, 2 1/2 per Cent., 59 1/2
3 per Cent. Consols Ann., 90 1/2	Brazilian, 5 per Cent., 85
3 per Cent. Annuities, 93 1/2	Chilian, 6 per Cent., 86 1/2
2 1/2 per Cent. Ann., 97 1/2	Mexican, 5 per Cent., 27 1/2
Long Annuities, 104	Spanish, 5 per Cent., 24 1/2
India Stock, 10 1/2 per Cent., 263 1/2	Ditto Deferred, —
3 per Cent. Consols for Acc., 91 1/2	Portuguese, 5 per Cent., 5 1/2
Exchequer Bills, 1000l., 14 10 pms.	Russian, 5 per Cent., 112

MINES.—That some little improvement in the mining share market has taken place, may be gathered from transactions in the following mines during the week, and in some of them rather large purchases have been made.

West Caradon	West Providence	West Wheel Jewel
Alfred Consols	West Wheel Maria	Lamheroe
Conardow	Stray Park	Wheal Walter
Concord	West Seton	Cradock Moor
Treleigh	South Trelawney	North Wheel Rose
Chryseis	Wheal Mary Ann	Barristown
East Wheel Alfred	Wheal Gill	West Tolgna

Business in the following foreign mines has also been done: Alken, Imperial Brazilian, Bolanos, Real Del Monte, and St. John del Ray.

RAILWAYS.—During the earlier part of the week, the transactions in the share market were a healthier tone than for some considerable time previous, and prices remained firm, though no great amount of business was done; during the past three days, although, generally, there has been a downward tendency where there was the least expectation of calls, business has been done in some few instances at an advance. The settling day (Thursday), passed without any remarkable effect on the market.

MEETINGS.—Leicester and Bedford: to petition House of Lords in favour of the line, and resolutions passed unanimously.—Taw Vale: for the same object, and passed unanimously.—Windsor, Slough, and Staines Atmospheric: to consider dissolution or otherwise; the bill being thrown out in committee, the Great Western Company had proposed to construct a branch from Slough to Windsor, and allow the company a fair proportion of the profits. Another meeting was decided upon, to be held on the 5th August next.—Sheffield, Buxton, Leek, Potteries, and Crewe: resolutions were adopted, to promote the dissolution of the company.

The shareholders in the Louvain and Sambre held a meeting last week in Belgium, and consented to the modification of the original plan, and to the construction of the branches from Namur to Charleroi, having ratified the convention of the 28th of January, and the law promulgated on the 30th of March last. The name of the company is to be altered, so as to include the Namur and Charleroi branch.

The Bank of England, it is said, has contracted a loan of 100,000l. with the Chester and Holyhead. The interest is 4 1/2 per cent., with a guarantee of 30,000l. per annum for the mails.

The Lincoln and Nottingham is to be opened the first week in August. The Royal assent was given on Thursday, by commission, to 64 railway bills; the greatest number of which are for branches and extensions of the principal lines.

Preambles proved in Lords.—Eastern Counties station enlargement; Huddersfield and Sheffield; Manchester and Leeds amalgamation; Grand Junction—Hynton and Ashton, and other branches; Ipswich and Bury St. Edmunds (Norwich extension).

The number of bills which have passed the Standing Orders of the House of Lords is 38. Twenty-one bills went through a select committee on merits; and, in the cases of the Birmingham and Oxford Junction and Birmingham extension, their lordships decided that the Standing Orders had not been complied with.

Bills lost in Lords.—Manchester, Sheffield, and Midland Junction; Midland and Eastern Counties (Cambridge and Weedon).

The number of railway bills read a second time in the House of Commons was four; a third time, 17; and the reports of 12 agreed to.

Bills lost in Commons.—Lancaster and Preston Junction.

HULL, THURSDAY.—The market, during the past week, has presented no particular alteration. South Midlands are better to-day, and Leicester and Bedford difficult to sell. Barnsleys higher, owing to buying in operations. North British Carriages in request, and Leeds and Bradford steadily advancing.

RAILWAY SHARE LIST.

RAILWAYS.	Paid	Closing pr. last week.	Closing pr. last night.
Aberdeen	210	210	210
Amber, Nottingham, Boston, and Erewash Junction	21	21	21
Amberg, Coleraine, and Portrush—25s. shares	11	11	11
Birmingham and Gloucester—100s. shares	100	128	131
Birmingham and Oxford Junction—30s. shares	9	6	6
Bristol and Exeter—100s. shares	70	—	—
Bristol and Gloucester—50s. per share	30	—	—
Caesarian—50s. per share	5	—	—
Cambridge and Lincoln—25s. shares	13	—	—
Chesham and Bury—25s. shares	15	—	—
Chester and Holyhead—50s. shares	15	—	—
Direct Northern—50s. shares	21	—	—
Direct Manchester (Heulington's)—30s. shares	25	—	—
Ditto Rastick's—30s. shares	54	—	—
Dublin and Galway—50s. shares	4	—	—
Dundalk and Enniskillen—50s. shares	74	—	—
Eastern Counties—25s. shares	141	166	244
East Lancashire	14	—	—
Edinburgh and Glasgow—50s. shares	60	—	—
Exeter, Yeovil, and Dorchester—50s. shares	21	—	—
Goole and Doncaster—30s. shares	15	—	—
Grand Union (Nottingham and Lynn)	14	—	—
Great Grimsby and Sheffield—30s. shares	5	—	—
Great Southern and Western (Ireland)—50s. shares	15	—	—
Great North of England—100s. shares	100	229	224
Great Western—100s. shares	80	153	152
Guildford, Farnham, and Portsmouth—50s. shares	5	—	—
Hull and Selby—50s. shares	50	107 1/2	106
Lancaster and Carlisle—50s. shares	25	—	—
Leeds and Carlisle	25	—	—
Leicester and Birmingham—20s. shares	22 1/2	—	—
Leicester and Bedford—20s. shares	22 1/2	—	—
Leicester and Tamworth—20s. shares	42 1/2	—	—
Liverpool, Manchester, and Newcastle Junction	18	—	—
London and Birmingham	100	225	228 1/2
London and Birmingham Extension—25s. shares	18	—	—
London and Blackwall—50s. shares	16	—	—
London and Brighton—50s. shares	50	65 1/2	66
London and Croydon	13 1/2	—	—
London and Greenwich	13 1/2	—	—
London and South Western—50s. shares	41 1/2	—	—
London and York—50s. shares	21	—	—
London, Salisbury, and Yeovil—50s. shares	21	—	—
Londonderry and Coleraine—50s. shares	23	—	—
Lynn and Ely—25s. shares	15	—	—
Lynn and Dereham—25s. shares	15	—	—
Manchester and Leeds—100s. shares	82	119	104
Manchester and Birmingham—40s. shares	40	83 1/2	84 1/2
Manchester, Buxton, and Matlock—20s. shares	42 1/2	—	—
Manchester and Southampton	1	—	—
Midland	152	151	151
Ditto Birmingham and Derby	100	—	—
Newcastle and Berwick—25s. shares	10	—	—
Newcastle and Carlisle—100s. shares	100	—	—
Newcastle and Darlington Junction—25s. shares	25	—	—
Ditto New (Branding)—25s. shares	20	—	—
Newark, Sheffield, and Boston—25s. shares	25	—	—
North British—25s. shares	17 1/2	—	—
North Devon	2	—	—
North Eastern—50s. shares	45	—	—
North Kent Direct Dover—50s. shares	42 1/2	—	—
North Staffordshire—20s. shares	21	—	—
Oxford, Worcester, and Wolverhampton	12 1/2	—	—
Portsmouth Direct—50s. shares	35	—	—
Preston and Wyre—50s. shares	50	—	—
Richmond—20s. shares	5	—	—
Rugby and Huntingdon—20s. shares	2	—	—
Scottish Central—25s. shares	7 1/2	—	—
Scottish Midland—25s. shares	10	—	—
Sheffield and Manchester—100s. shares	100	—	—
Shrewsbury and Birmingham	23	—	—
South Devon—50s. shares	25	—	—
South Eastern and Dover	41 1/2	—	—
South Midland—20s. shares	42 1/2	—	—
South Wales—50s. shares	5	—	—
Staines and Richmond—20s. shares	1	—	—
Trent Valley—20s. shares	5	—	—
Trent Valley and Holyhead Junction—20s. shares	2 1/2	—	—
Tale of Neath	2	—	—
Welsh Midland	2	—	—
Wills, Somerset, and Weymouth—50s. shares	5	—	—
Yarmouth and Norwich—20s. shares	20	—	—
York and Carlisle	2	—	—
York and North Midland—50s. shares	50	99	101
Ditto Selby—50s. shares	30	75 1/2	79

FOREIGN RAILWAYS.

Boulogne and Amiens—20s. shares	10	—	—
Bordeaux and Toulouse and Cette (Mackenzie)—20s. shares	2	—	—
Bordeaux, Toulouse, and Cette (Españole)—20s. shares	2	—	—
Central of Spain—20s. shares	2	—	—
Dutch Rhine—20s. shares	5	—	—
East Indian	5	—	—
Great Northern of France (constituted)	5	—	—
Great Western Bengal	5	—	—
Great Western Canada—22 1/2 shares	3 1/2	—	—
Jamaica and South Midland Junction—20s. shares	1	—	—
Jamaica North Midland	1	—	—
Louvain and Jemeppe—20s. shares	4	—	—
Lyon and Avignon—20s. shares	2	—	—
Luxembourg	2	—	—
Namur and Liège—20s. shares	4	—	—
Orleans and Vierzon—20s. shares	10	—	—
Orleans and Bordeaux—20s. shares	6	—	—
Paris and St. Quentin—20s. per share	2	—	—
Paris and Orleans—20s. shares	20	—	—
Paris and Rouen—20s. shares	20	—	—
Rouen and Havre—20s. shares	18	—	—
Sambre and Meuse—20s. shares	6	—	—
Strasbourg and Basle—14s. shares	4	—	—
West Flanders	4	—	—

RAILWAY TRAFFIC RETURNS.

Name of Railway.	Length Rwy.	Present annual cost.	Last Div.	Traffic Returns.	1846	1845
Arbroath and Forfar	15	£140,792	3½ p.c.	—	—	£205
Chichester and Bournemouth	15	689,632	3½	774 5 11	780	780
Dublin and Drogheda	32	631,258	4	826 6 2	816	816
Dublin and Kingstown	5	349,736	5	1379 3 8	1380	1380
Dundee and Arbroath	17	153,598	6	345 0 11	362	362
Durham and Sunderland	19	302,118	2	526 12 1	548	548
E. Counties & North & East	124½	4,080,328	6½	9723 9 8	9215	9215
Edinburgh and Glasgow	46	1,086,226	6½	3795 2 9	2732	2732
Glasgow, Paisley, and Ayr	51	1,104,773	6	2261 6 8	3010	3010
Glasgow, Paisley, & Greenock	23	806,134	3	1255 14 2	1249	1249
Grand Junction Company	119	2,907,317	10	—	10318	—
Great Central and Rochester	45	85,000	—	390 18 10	332	—
Great North of England	45	1,159,196	—	—	—	—
Great Western	240	8,179,890	9	30075 17 6	18892	—
Hartlepool	—	—	—	861 11 1½	—	—
London and Birmingham	176	7,417,217	10	39517 8 2	21009	—
London and Blackwall	4	1,078,851	1½	1476 10 1	1461	—
London and Brighton	69	2,568,973	7	6973 11 5	5846	—
London and Croydon	10	842,592	3½	1977 5 2½	1782	—
London and South-West	58	2,620,784	10½	8022 10 0	8681	—
Manchester and Birmingham	85	3,875,875	8	4815 2 2	3785	—
Manchester & Leeds	61	3,572,869	8	6989 9 5	6748	—
Manchester, Bolton, & Bury	10	842,730	6½	1151 0 0	1160	—
Midland Company	169	6,636,105	6	17596 16 5	16904	—
Newcastle and Carlisle	65	1,137,385	5	2027 15 8	1746	—
Newcastle and Darlington	22½	1,272,031	9	3086 14 1	2887	—
Newcastle and North Shields	7	316,669	5	548 0 0	578	—
Norfolk	69	873,818	10	1627 10 0	1489	—
North Union, Bolton & Leeds	32	1,060,551	6½	—	1867	—
Preston and Wyre	22	432,014	2	1137 11 5	901	—
Sheffield and Manchester	41	1,313,225	2½	1887 0 8	804	—
South-Eastern and Dover	103	2,284,924	3½	1243 2 3	7745	—
Taff Vale	30	648,348	5	9240 10 8	1124	—
Tewkesbury and Gloucester	25	358,353	3½	633 13 8	646	—
Thames Valley	30	620,000	5	—	2508	—
York and North Midland	53	1,632,889	10	6615 0 8	649	—
York and Orleans	82	2,082,916	8	5664 0 0	5663	—
Paris and Rouen	84	1,995,906	9	6312 0 0	5829	—

BRITISH MINES

* * We should feel greatly obliged by agents, or others interested, furnishing us with such corrections for our Share List as we may not have received through our usual channels of information—our object being, to present as accurate a list of prices as can be obtained—to procure which, we solicit the aid of correspondents in general.

LONDON, JULY 17, 1843.

1. The first group of students (Group A) was assigned to read the text and identify the main idea of the passage. They were then asked to write a short paragraph summarizing the text in their own words.

IRON.—Welsh and Staffordshire continue in good demand, and large sales of Scotch pig have been made at quotations. In foreign iron and steel nothing new to report since the publication of last week's *Mining Journal*.

TIN (English) remains in the same position as last week—the smelters still adhering to our quotations, but will not spill. Foreign is in fair demand.

[Communicated by Messrs. Whitcomb and Barton, Old Broad-street.]

English bar-iron continues very firm. The demand has increased considerably, and higher prices talked of. Welsh and Staffordshire pig-iron steady at last week's quotations. In Scotch pig-iron good business doing at 78s. 6d., canal, and 75s. 11l at three to four months for mixed numbers. In rails, contracts have been made this week at 94. 10s. for specification in February next.—No alteration in other metals.

[From a Correspondent.]

In spelter a few transactions have taken place during the week at 162s. 6d. per ton, at which there are still sellers.—English bar-iron has been in great demand during the week at 87. 10s. per ton, delivered in Wales—the trade being the principal buyers. Rails are firm at 97. 10s. per ton, and large orders are in the market at a shade under. Welsh and foreign pig-iron is in great demand at 75s. per ton, and the market is well supplied. Swedish pig-iron has advanced to 75s. since last week for No. 1, and 72s. 6d. for mixed numbers, which prices many thousands tons have been sold, and many of the makers are asking 80s. per ton at Glasgow. Swedish iron and steel without demand.—English tin is in good demand at 10s. 6d. per cwt. and 5s. 6d. per lb.—Copper is held firm, but little doing.—English and foreign lead rather dull of sale.

Ditto	Hocking's 80-in	10-0	98,189	14-6	6-4	4050	55-1	} 451-7 628-0	ge tin In
nited Hills..	Williams's 80	10-0	74,576	11-8	6-5	2676	59-0		
ast Wh. Rose	Penrose's 70 in.	10-0	42,237	9-8	3-1	808	60-2		
Ditto	Michell's 70 in.	10-0	52,806	12-3	4-9	1565	60-7		

improvement, if intended to be permanent, must be the result of

reflection, and not of impulse; and for that some ease and leisure will be necessarily requisite. Without aims giving, without a statutable endowment, there must be a contrivance for enriching the hand of diligent labour. We do not covet or care about an increase of the national wealth—that will flow through the land at all seasons of the year, with sufficient depth and fullness—but we should rejoice to see a series of canals and capillary tubes, radiating from the body of the great stream, carrying fertility and contentment to the homesteads of the miner and the manufacturer.

By the perfecting of the bill for the importation of foreign corn, the great territorial lords have been let down at least a peg. By an enactment—or, if needs be, by a series of enactments, operating upon the labour interest of the kingdom—lift up the lackland millions at least a peg—doing which you will have brought the two opposite, and in some things antagonist, powers of the State into such an improved harmony, and understanding with each other, as will enlarge and concentrate for all national purposes the energies and interests of all. Circumstances have given us frequent opportunities of access to the labouring mind of the kingdom—we have read and treasured up the short and simple counsel of the poor—and it is principally from this acquaintance with their history and their hopes, that we venture in this place to affirm, that there is not in our judgment, within the wide sway of the British sceptre, a class of men more requiring, or more deserving, the interposition and the assistance of the legislative and the wealthy, than the mining labourers of Great Britain.

It was only from want of space that we did not notice at greater length, in last week's Journal, the report of the New British Iron Company, presented at the meeting held on the 7th instant, and also that of the Royal Santiago Mining Company, held on the 8th inst. The former, though short, is of the most encouraging character, when we call to mind the state of the original company, from whose ashes the present one has phoenix-like arisen, with better success, and with future prospects of the most promising character—the continual losses, embarrassments, and discouraging circumstances, attending a protracted and most expensive law-suit, and during a period when the iron trade was in a fluctuating and unprofitable state: it is a gratifying proof of what well directed enterprise will effect even, to many a superficial observer under the most unpromising and disadvantageous prospects. Had it not been for the prudent foresight of some of the parties largely interested, which induced them to attempt the resuscitation of the company, and endeavour to regain at least some part of the large sums which had been lost, the valuable mineral property, now in the possession of the New British Iron Company, would have gone into the hands of others who had had no share in the misfortunes of the old company; while under the present arrangement, and the profitable state of the iron trade, those, at least, of the old shareholders, who stuck to the bark until she was brought safe into port, will now have to rejoice in their adherence, and the prospect of future returns. The dividend, it will be seen, was 20s. per 10l. share, or at the rate of 20 per cent. per annum.

With respect to the Santiago report, it is so far satisfactory, as being of a more encouraging character than that of the half-year ending 31st August. In that period there was a considerable deficiency in the receipts to meet the expenditure; in the last accounts, there is a profit of 2928l. 19s. 7d., which makes up the deficiency—leaving a clear balance of 654l. 3s. 9d. on the half-year. After a due consideration of the present appearances and prospects, the directors came to the conclusion, that they were justified in declaring a dividend out of the profits of the half-year, reported at the meeting in July, 1845, amounting to 23s. per share, payable on and after the 16th inst. With respect to the law-suit, which has been so long pending between this and the Coburn Company, and which has been productive of bad feeling, delays, great loss, and expenditure, we are happy to observe, that the directors are about to make arrangements for the settlement of the dispute, if possible, on an equitable basis, which will be a result most advantageous to all parties concerned. The colonial gents of the long robe of Spain have long been proverbial for their capidity; and while it is to their interest to prolong the contest, the shareholders will find it theirs to bring the affair to an amicable termination.

The lamentable accident at East Wheel Rose, recorded in another column, whereby 39 men and boys have, with scarce a moment's notice, passed into another state of existence, is one of those suddenly awful catastrophes which appeals at once to the sympathy of the human heart; and long as the *MINING JOURNAL* has advocated the establishment of some general means of assistance for the widow and fatherless, occasioned by the desolating casualties which so often—alas! too often—happen in mining districts, as well as for the passing of some legislative measure for the prevention of accidents in mines and collieries, we were never before called upon by a circumstance so perfectly unprecedented to endeavour to arouse the dormant energies of the miners' friends—and to impress upon them the moral duty of that large body of wealthy and influential individuals, who derive fortunes from the exertions of the working miner, to take some immediate steps for obtaining the formation of an institution—a miners' club, for instance—by which there would be some certain source of relief for his family to fall back upon in cases either of disability or death; and further, to obtain the passing of such legislative enactments as will compel the managers of mines and collieries to make such necessary arrangements for the prevention of these appalling accidents, as the present advanced state of science can command. This accident has occurred, not from the expected sources of danger—the breaking into subterranean deposits of water, deleterious gases, or the commonly occurring falling in of roofs—but from a source, against which not the slightest idea could be formed of making any preparation, simply because it was never expected to happen—viz.: the effects of a thunder storm, and tremendous shower of rain, by which, in comparatively a few minutes, the mine, with 200 human beings inhaled, was more than half filled with water—the consequence is, that 39 fellow creatures are lost to society, and 22 widows and 60 children thrown upon the world helpless and destitute. Once more we call upon those who profess to be the miners' friends to aid us in the furtherance of these desirable objects, convinced that not only will it be a boon to the miner and his family, but of incalculable advantage to the adventurers themselves.

Among the several subjects to which our attention has been directed of late, is one requiring serious consideration, as affecting the cost-book system, which we had ever considered was so simple in itself, and so clearly defined, that it would be an insult to common sense to attempt to offer an explanation to any one connected with mines in the country, more especially those who, from their local position, must be assumed to be in possession of the general rules applying to mining. It would, however, appear that there are certain parties, who would endeavour to lead their coadventurers and the public astray as to the cost-book system, and who are anxious to render it just as will best meet their own views or interests. It is, we confess, with surprise that we find intelligent men, such as Mr. Llyn and others of the legal fraternity in Liskeard, laying it down as law, that no adventurer can resign his shares or interest in an adventure on payment of his proportion of costs up to the period of his declaring such intention, and taking his like proportion of funds, value of ores, materials, &c.—a proposition of such a nature having been rejected in two instances within the past few weeks, one of which was recorded in our columns last week. We find the 63rd section of the Joint-Stock Companies Registration Act quoted fre-

quently in connection with prospectuses issued for working mines, the words being, "that nothing in this Act contained shall extend, or be construed to extend, to any partnership formed for the working of mines, minerals, and quarries, of what nature soever, on the principle commonly called the cost-book principle." Now, it must be clearly evident to all, that the cost-book principle is assumed as well defined and understood, and that it holds out peculiar inducements, among which is the limited responsibility of liability of the adventurers, the accounts being made up every two months, or at stated intervals, and a division of the profits or loss arrived at. It is true, that this course is not strictly observed in all cases by parties who profess to work a mine on the cost-book system, but that such is the principle on which the system should be carried out, we believe no doubt can be entertained by the most sceptical. We have already said, that one of the principles of the cost-book system is that, on closing the accounts every two months, any adventurer is at liberty to retire; and, on paying his proportion of costs up to that day, is entitled to have his share written off the cost-book, and any intimation in writing to the pursuer, or personally communicated at the meeting, and entered on the mines, is binding on the adventurers generally,—and thus frees the party so resigning his interest or share in the mine from all future responsibility; while he is, moreover, entitled to his proportion of the value of the materials, ores, funds, &c., the same as if the mine was abandoned, or that the "bad was knuckled." We think it right thus to direct attention to the subject, which is one of the greatest importance, as involving the interests of thousands, and on which many hundreds of thousands of pounds may be said to be dependent. We shall resume the subject in our next, and in the meantime court the correspondence of those interested in the subject, and more especially those intimately connected with the working of mines on the cost-book system.

IRISH PACKET STATION.—Some time has now elapsed, since we made an announcement in the *Mining Journal*, with all but official authority, that the Board of Admiralty had declared that Bantry Bay, in the west of the county of Cork, was the most eligible of the three bays or harbours on the south-west coast of Ireland, which had been under consideration, for the establishment of a trans-Atlantic packet station. We, in a series of articles, pointed out the advantages which, in every requisite for such station, that bay, with its harbour of Berehaven, possessed, beyond the other two harbours—Valentia and Galway,—or, at the mouth of the Shannon, also suggested for a station. Not that we denied the possession of great advantages to them, particularly to Valentia; but that it was palpable to all seamen and surveyors of the south and western coast of Ireland, that the great superiority of advantages was in favour of Berehaven harbour—that it was more accessible in every state of wind, tide, and weather, and more secure in every sense, than either of the others—and that, above all, it was that which lay the most convenient for a starting point for, and an arrival point from, America and the West Indies. Valentia, on this head, could alone approach it in competition. Then, the facility of constructing a railway from Bantry to Bandon—a work already undertaken—and the rapidity of conveying the mails from Cork (to which a railway from Bandon is being constructed, and, as we believe, nearly completed), by steam-packets to either Padstow or Minehead, and thence by railway to London—was dwelt upon by us as an advantage of the greatest moment. From Bantry to Cork 1½ hour, from the latter to Padstow in 12 hours, and from thence to London (240 miles), say in 8 hours. By way of Minehead would make a difference in delay of, perhaps, two hours on the whole, owing to the greater length of the sea voyage from Cork to that place. At the time that we announced the declared preference of the Admiralty for Bantry Bay, as the contemplated packet-station, we were aware that the final selection of the station rested with the Treasury; but we assumed, as an apparent matter of course, that the latter would be altogether guided in its selection by the recommendation of the former. When we first made the announcement, that it was determined to establish a packet station, and a military depot, or station, for transference of troops, with as little delay as possible, to any point from the south-west of Ireland—and, farther, that Bantry Bay was preferred for such stations—we well recollect the incredulity of some of the Irish, and of all the English journals, that noticed the subject. The first thought it too good to be true—the last believed it too absurd to be possible: the one asserted, that the English Government would never confer such a benefit on Ireland; and the other, that it would not presume to take away from England any portion of the monopoly of packet stations for either Ireland's, or even the empire's benefit. The clever Cork people were, however, quite alive to the possibility of the thing—so were the good people of Kerry—and rail ways to Bantry Bay and Valentia were projected, and deputations from each county sent to Sir Robert Peel, who, for his only answer, stated, that the selection of the packet station would mainly depend on the lines of railway affording the greatest facility and rapidity of conveyance from either of the harbours in question—Cork and Dublin. This reply was, if it said nothing, very encouraging to either deputation, considered to be a virtual admission that Government had determined on the packet station. Thus rested the matter for that time. Parliament met, and week after week passed away, without any allusion to the Irish packet station being made by any party. The Government were too importantly occupied in greater and more pressing affairs. At length, on the 31st of March, the Marquis of Lansdowne, in presenting a petition from the grand jury of the county of Kerry, praying of the House of Lords to expedite Irish railway bills as much as possible, in order to give employment to the poor of Ireland, took occasion to "call the attention of the House to a matter of great importance—viz.: the establishment of a packet and military station on the south-western coast of Ireland, and the securing of a good and speedy communication across the Atlantic. He, therefore, wished that the Government should express their intention in respect to the selection of such station, while the lines of railway were under the consideration of the House." "It was (added the noble Marquis) most important in the embarkation of capital in them, that the station should be fixed on, whether at the mouth of the Shannon, Valentia, or Bantry Bay, or any other place that may be deemed more eligible. There ought, in his opinion, to be some understanding with the Government with regard to such a measure, so that those railways should be made to answer in the best way for public purposes. He would give no opinion on the best point for a station, but he would call on his noble friend, the First Lord of the Admiralty, to state the intention of Government on the subject, in order that no difficulty should be thrown in the way of accomplishing the schemes proposed for railway accommodation in Ireland." To this the then new First Lord of the Admiralty, and late Governor-General of India—the Earl of Ellenborough—replied, "that he was obliged to his noble friend for the suggestions, but he would beg leave to inform him, that the selection of a station on the west coast of Ireland rested with the Treasury and not with the Admiralty. But he would say, with regard to the ports named for a packet station, he thought that Valentia would not be selected. Bantry Bay was better, but Cork was better than both." This declaration produced a letter from the Knight of Kerry, in defence of Valentia, and in utter depreciation of Cork, for a trans-Atlantic station. Upon what data the noble First Lord of the Admiralty gave the preference to Cork over Valentia and Bantry, it is possible (now that his official career as such, for a time at least, is terminated) he will not state; but certain it is, that such preference was more in accordance with the knowledge of a Governor-General of India, than that which a First Lord of the Admiralty should possess—at least, in respect to matters so near home, and connected with his official duties. Now that a new Administration, of which the Marquis of Lansdowne is a distinguished member, is installed in power, we trust the noble Marquis will not allow much delay to intervene in making this question, of the Irish packet station, a Government measure. We have extended our remarks rather further than our present space would, in justice to other claims upon our columns, permit,—but the importance of the subject, in a national point of view, must be our excuse. On the next fitting occasion we shall return to it.

CAMERON'S STEAM COAL AND SWANSEA AND LOUGHOR RAILWAY COMPANY.—We are glad to be able to announce that this bill was read a third time and passed in the House of Commons yesterday evening; and having passed that ordeal, we think there is now every prospect of its safely passing the Upper House, and receiving the Royal Assent.

IRON TRADE.—It is rumoured that an iron foundry is about to be erected at Newbold, near Chesterfield. The foundry on the Wingerworth estate is rapidly progressing, and there seems every prospect of the iron trade in the neighbourhood of Chesterfield becoming as flourishing as formerly.—*Derby Reporter*.

QUANTITY OF COPPER ORE SOLD AT PUBLIC SALE.

In the county of Cornwall, from 48 principal mines, with the Number of Ticketings, Number of Tons (31 cwt.), and Amount of Money, for THE QUARTER ENDED JUNE 30, 1846.

Mines.	No. Ticketings.	Tons.	Amount of Money.
Wheats Maria and Fanny	3	4909	£21864 19 6
United Mines	3	3340	14674 16 6
Carn Bre	3	1834	10330 6 6
Fowey Consols	5	1274	9541 15 6
Consolidated Mines	2	1588	9534 15 6
Wheal Seta	2	1400	9666 19 0
West Cadzand	3	1396	8658 19 0
Par Consols	6	1566	8457 0 6
Tincroft	3	1577	6476 5 6
South Cadzand	3	1070	6183 4 6
East Wheal Crofty and Longclose	3	1083	5871 7 6
North Roskear	1	952	5741 2 0
North Wheal	3	1433	5348 16 0
Trasvaen	2	991	4834 4 6
Stray Park and Camborne Vein	3	833	4463 13 0
South Wheal Basset	3	882	4115 15 0
Wheals Prosper and Friendship	3	569	3905 2 6
Trenow Consols	3	536	3364 0 6
Treleigh	3	786	2190 11 6
United Hills	3	652	2692 0 6
Dolcoath	2	416	2205 18 6
Lanivet Consols	2	344	2056 0 0
Wheal Providence	2	353	2049 3 6
Graham and St. Aubyn	2	320	1913 13 0
Treriseley	2	337	1913 13 0
Holmbush	3	289	1891 17 6
Bedford	3	414	1873 0 0
West Wheal Jewel	1	367	1539 1 0
Poldice	2	308	1527 0 0
Trevaras	1	258	1477 7 6
Levant	3	412	1360 17 6
Trethellan	1	300	1329 9 6
Ferran St. George	2	245	1269 6 0
Wheal Virgin	1	327	1253 10 0
South Roskear and Wheal Chance	2	240	1166 0 6
Godolphin	2	200	1116 0 6
East Pool	2	388	1695 18 6
Martha Valley	1	191	1086 2 6
Wheal Jewel	1	264	1017 16 6
South Wheal Towan and Lydia	2	195	1008 8 6
Wheal Sisters	1	132	854 14 6
Wheal Ellen	1	120	780 19 0
Wheal Harriet	1	177	679 15 0
Tretoll	1	149	660 8 6
Craig Braws	1	136	636 11 0
Hallenbeagle	1	190	571 13 0
Condurrow	2	143	568 2 6
St. Agnes Consols	1	122	410 3 0
Total	36,479	£193,636	2 6

THE IRON TRADE—QUARTERLY MEETINGS.

The last of the district quarterly meetings was held at Birmingham, on Saturday last—the assemblage of ironmasters was large, and the utmost spirit and activity prevailed. The trade was pronounced to be in a decidedly healthy state, and many large transactions took place. It was admitted on all hands, that there had been a greater sale of pig iron during the past week in this district, than at any former quarterly meetings for many years past. It is estimated that about 25,000 tons of that description of iron were sold in lots of from 500 to 4000 tons, independently of the large railway order noticed in our last. Under these circumstances, there was no disposition to recede from the prices of Thursday; on the contrary, they were fully confirmed, and may be said to have advanced on those of the last quarter, as pig iron is now worth five shillings a ton more than it was sold at since April last. The prices will, therefore, stand thus:—Bar iron, 10l.; pig iron, from 4l. 15s. to 5l.; and 5l. 5s. for real blast. For Shropshire iron, 5l. 10s. was asked, but refused. This prosperous state of the trade is truly gratifying; and, after all said against railway speculations, must be mainly attributed to that most important branch of our commercial enterprise. Three years ago, Dudley was one mass of wretchedness: half the shops were closed, and no more appearance of trade than if such a thing never existed in the place; mills, forges, and blast-furnaces, were nearly all out of work. The mechanics were leaving their homes and emigrating—and those who could not escape were dragging out a miserable existence on some newly-constructed roads, at 8d. and 1s. per day; while the miners in work could only earn 2s. per day, the colliers 3s., and superior workmen at the same ratio. Bar iron then sold for 5l. a ton, pig iron 2l. 6s., and no prospect of any other than these ruinously-low prices. Now, good retail shops cannot be had at any advance of rent. All the mills, &c., except those in repair, or the operations of which are suspended for some useful purpose, are at full work. The masters cannot find hands enough to execute their orders: the miners are receiving from 3s. 6d. to 4s. per day—the colliers earning 5s. a day at the thick coal, and from 3s. 6d. to 4s. at thin coal; while an iron-maker and his boy can command from 4l. to 5l. a week, and the master full double the price for the manufactured article which he received in 1843. It is impossible to conceive a more striking contrast than that which the past and present state of this district presents.—And here, perhaps, we may not inappropriately finish the tabular statements which appeared in the *Mining Journal* of last Saturday. That statement included only the works in South Staffordshire, and we now give those of North Staffordshire, which will make the return for the county correct.

Proprietors.	Works.	Furnaces.	In blast & out.
W. H. Sparrow	Lane End	3	3
R. E. Heathcote	Apollon	3	3
Thompson	St. Ewold	2	1 out.
Lord Granville	Ekruia	2	2
J. Firminstone	Creve	2	1 out.
Thomas Kinnesley	Kidgrove	3	3
R. Sneyde	Silverdale	3	1 out.
Goldendale Company		2	2
Total		21	17

The quantity made weekly in this part of the country, in the year 1843, was 620 tons weekly, now the make amounts to 1530 tons.

DR. CLANNY'S SAFETY LAMP.

The following valuable testimonials in favour of Dr. Reid Clanny's improved Safety Lamp have just come to hand, having been mislaid—and which we have much pleasure in placing before our readers:—

From JOHN RUSSELL, Esq., proprietor of the *Bisca Collieries*, near Newport, April 16, 1846:—"I requested Dr. Clanny to furnish me with two of his improved safety lamps, in order that I might at once proceed to test their merits. The safety lamps came to hand only two or three days before I left home, so that I had not an opportunity of ascertaining the full extent of the improvements made—but so many advantages presented themselves in 'this improved safety lamp' over all others I had used or seen, in the very limited experiments that I was enabled to make, that I have no hesitation in offering my testimony in its favour. I am the more ready to do this, because I have this morning received a letter from my clerk, in which he states, that my colliery viewer has still further tested the merits of Dr. Clanny's improved safety lamp, and he also speaks in the most satisfactory terms of the advantages which it affords.

P.S.—I have, perhaps, made an important omission, in not stating in what the advantages of Dr. Clanny's safety lamp consists—it is in the much greater light which it affords (quite sufficient to work by)—its more economical consumption of oil—while it is much safer than any other which has been used in my works. These remarks have reference to Dr. Clanny's improved safety lamp.

We have also pleasure in printing the following testimonial, which goes a considerable way back, in respect to date—viz.: 1841—and comes next to that of the distinguished Report of the South Shields' Committee on Accidents in Coal Mines:—

From JOHN JOHNSON, Esq., *Willington*, April 13, 1846:—"I have to say, with regard to your new safety lamp, that since the year 1841, I have generally used it during my inspection of the collieries with which I am connected, and have, consequently, had many opportunities of testing it, in explosive mixtures, and also in strong currents of air. With regard to the former test, I have invariably found it to be a perfectly safe lamp; and, although I have frequently kept it in the explosive mixture for some minutes, I have never yet known the glass to become dangerously heated. In strong currents of air, travelling at the rate of 8 ft. per second, or 5½ miles per hour, I have not at any time observed the flame to be affected, which renders it remarkably serviceable to those workmen, in a mine, who are exposed to them, such as watermen, &c.; and as the force of the current is not directly against the flame, it is impossible for any sparks to be blown from the lamp. This lamp is a very great deal superior to any other I have seen, with regard to the increased light—and, as the light from the wick does not pass through the meshes of the wire gauze (as in the case with the Davy lamp)—you have taken advantage of this improvement by keeping the texture of the gauze much finer, thereby rendering it infinitely safer in this respect, than any other. I shall be glad at any time to give you any information."

* The same observation was made by G. Elliot, Esq., in his testimonial in favour of the "Clanny lamp," viz.: our penultimate number, being for the 26th ult. we only remark that, *curiosum pariter*, when less oil is requisite for a given time, less soot will be extracted.

PROGRESS OF FRENCH MINING INDUSTRY.

(FROM OUR PARIS CORRESPONDENT.)

According to the report of the engineers of mines attached to the department of Public Works, the number of *hautes fourneaux* existing in this country, on 31st December, 1845, was 594; of which 430 were in operation, and 164 inactive. These figures are pretty nearly the same as those of preceding years; but it is to be remarked, that the furnaces employing wood had diminished, whilst those using coke or coal had increased. The number of workmen employed in the fabrication of iron, was 49,683; exclusive of a vast number of labourers employed about, but not in, the furnaces. Here, again, no increase has taken place; but it is assumed, that the workmen did more labour, and that improved systems had been employed. 194 steam-engines, of 6000 horse-power, were employed, as was also hydraulic force of 21,694 horse-power. This presents an increase in the force employed of 6150 horses over 1839, and 2500 over 1843. The working of cast-iron, of iron, and steel, caused the consumption, in 1834, of 120,000 tons of iron ore, 581,000 tons of charcoal, 583,000 stères of wood, 237,000 tons of coke, and 430,000 tons of coal. The quantities of coal and coke are represented to be equal to 907,000 tons of pit coal, or nearly one-fourth of the general consumption of the whole kingdom. In 1835, the total quantity of mineral fuel consumed was only 354,000 tons. In 1844, the production of France was as follows:—Wrought iron, 427,000 tons (said to be one-third of the production of England, and three times as much as that of Belgium); raw iron, 315,000 tons; steel, 9130 tons. The official value of all these was 178,000,000 francs, in which the matters employed, as taken at the place of production, figure at 28,000,000 fr. Ten years ago, the production of cast iron was 295,000 tons—thus showing the increase in 1844 to be 132,000 tons. Ten years ago, 246,000 tons of wrought iron were obtained by the employment of wood for fuel, and 49,000 from coal. In 1844, 280,000 tons were obtained from wood, and 147,000 from coal. In 1835, 108,000 tons of raw iron were manufactured by the use of wood, and 102,000 by coal; in 1844, the returns show that 109,000 tons were from wood, and 206,000 from coal. These figures show that great improvement has taken place in France in the manner of conducting iron works. The report of the engineers dwells upon this fact. It says that, when wood only was used, fears were entertained of the future prosperity of the iron trade; but since coal and coke have come to be generally employed, no fears need be entertained, especially since railways and canals afford such vast facilities of economical conveyance. As regards coal, the number of mines in 1844 was 425, extending over 450,000 hectares; 252 were worked, and 173 remained idle. These 252 mines employed 29,554 workmen, and yielded, 3,550,000 tons of coal, 580,000 anthracite, and 148,000 lignite—total, 3,783,000 tons, representing one-seventh of the production of England, and rather less than that of all Belgium. Since 1839, it appears that the number of coal pits actually worked has only increased by 6 or 8, yet the production has augmented 28 or 30 per cent. But notwithstanding this increase, the supply fell short of the demand by 1,756,000 tons, which were brought from England and Belgium. It would have been possible, perhaps, to have increased the supply; but the cost of conveyance is so enormous—a drawback that will be lessened in some degree by the extension of railways. A comparative statement of the consumption of coal and wrought iron, in different countries, is given, from which it appears, that France consumes 5,400,000 tons of coal, or 154 kilogrammes per head; 480,000 tons (excluding fractions), or 13½ kilogrammes cast iron per head; England, 23,500,000 tons of coal, or 870 kilogrammes per head; 1,200,000 tons of cast iron, or 40½ kilogrammes per head; Belgium, 3,200,000 tons of coal, or 800 kilogrammes per head; 120,000 tons cast iron, or 20 kilogrammes per head; the Zollverein, 3,000,000 tons of coal, or 107 kilogrammes per head; 300,000 tons of cast iron, or 10½ kilogrammes per head.

I have heard it stated, that certain railway companies have determined on obtaining possession of some vast iron works, with the view of emancipating themselves from the heavy tribute exacted by the ironmasters, by means of their monopoly. A Lyons newspaper mentions, in confirmation of this, that agents of the companies have been on the outlook in that neighbourhood for iron works to be sold or let. For my own part I am not very much inclined to credit the statement; for the fact is notorious, that many of the ironmasters in France contrived to thrust themselves into the direction of all the principal railway companies; and I am inclined to think, that their influence therein would be sufficient to enable them to knock any such design on the head. Besides, every one who has the least knowledge of the laws relative to French companies must be aware, that railway companies, as such, cannot become companies for manufacturing iron, without the express sanction of the Government, which would certainly not be accorded.

The *Journal des Debats* publishes a letter from St. Petersburg, stating that, in 1841, the gold extracted from the mines in Russia was 9610 kilogrammes, of the value of 39,000,200 francs; in 1842, 9810 kilogrammes, value 53,200,000 francs; 1843, 12,950 kilogrammes, value 72,800,000 fr.; 1844, 13,410 kilogrammes, value 75,600,000 francs; 1845, 13,711 kilogrammes, value 79,000,000 francs. The total value of the gold extracted in the five years is 12,792,000 fr. in our money. It will be seen, that there has been an increase every year, and it is likely that the increase will continue for the future. What is to become of the gold? is a question now asked with some anxiety in Russia—England, which has hitherto taken all, clearly not being able to purchase for the future all that Russia is capable of producing. But there will be, doubtless, little difficulty in getting rid of it. France, for example, might take large quantities, in order to make gold coin more plentiful than at present.

Very serious disturbances have broken out among the miners of Anzin. It appears that, some time ago, the directors of the company caused the waggons, or carts, used in the mines, to be constructed of sheet iron instead of wood. This made them much lighter for the workmen to draw. But after a little while, the company not choosing to let all the advantage of the change fall to the miners, increased the size of the waggons, and insisted upon the men drawing them full of coal, without any increase of pay. This, the men contended, was a scandalous imposition, inasmuch as it made their labour more severe, without any corresponding advantage—and, rather than submit to it, the men turned out *en masse*. They committed several acts of violence, such as smashing windows, breaking down gates, &c.; and a troop of hussars had to be called in to keep them in order. A day or two after, the men proposed to proceed to all the mines in the neighbourhood, and compel a general strike. The military force had considerably to be increased, and it is now very formidable. All efforts to induce the men to return to their work have thus far been unavailing. Their demands have increased to such an extent, that the company say, that it is perfectly impossible they can be complied with; and they insist that the men shall return to the pits before they are even taken into consideration. At the date of the last letters the men were still on the strike, and fears were entertained that they would proceed to acts of violence against other mines, and compel the miners to join them. All the principal authorities were on the alert at the head of a strong military force.

St. Dizier letters say, that the last quotations of *fers battus* were 370 fr. to 380 the 1000 kilogrammes; *laines*, 370 fr. delivered at St. Dizier, 380 at Paris. The *fontes blanches* were firm, and the *fontes grises* were at 200 and 205 fr. Furnaces situated on the banks of feeble water-courses had been put out, owing to the drought.

The terrible accident on the Great Northern Railroad has excited intense sensation. Fourteen persons were picked up dead, and three (it is said) have since died from the injuries they received.—Paris, July 14.

ELECTRO-MAGNETIC ATMOSPHERIC RAILWAY.—A patent has been secured by Messrs. Taylor and Conder, for connecting the propulsive power of the piston in the tube of an atmospheric railway with the train, by the attraction of electro-magnetism; this is effected by having the tube cast as a plain cylinder, with a longitudinal opening in the upper surface, without flanges, and very narrow; this is covered by a rectangular hollow case, bolted down air-tight on the tube; this cover must be of brass, copper, or some other metal, or substance, not susceptible of electro-magnetic influence, and the bolts must be also of copper. The piston consists of two end discs, between which are fixed four upright square pieces of brass, or copper, capped by iron, called armatures; fitting the rectangular space in the upper case, and presenting their broad surfaces to the sides. To the leading carriage of a train, is affixed four electro-magnets of a peculiar form—viz.: bent into an elliptical form, with an opening in the lower long side, to pass over the rectangular case, and thus present their two faces to the faces of the armatures within. In the carriage is a powerful galvanic battery, to which the magnets are connected by wires, in the usual way. Motion being given to the piston, and the connection of the magnets with the battery effected, the latter become virtually coupled together by the attraction, which the material of the upper case does not interfere with, and draw along with them whatever carriages may be attached.

Original Correspondence.

THE SUPPLY OF BLAST-FURNACES.

SIR,—South Wales derives a large supply for her furnaces from the ironstones of districts very remote from her iron-works, yet there exists within the reach of every ironmaster in South Wales a rich and boundless supply of iron ore, as rich as the ores of Cumberland and Lancashire, and to be got at for less than half the cost per ton—but as yet it lies unknown, and, therefore, disregarded. Staffordshire has long felt the scarcity of ironstone, and immense prices have been paid for even inferior kinds; yet all the iron-works in Staffordshire might obtain a supply at one-third the present cost, from a source at present unknown to the iron trade, yet not remote from the iron making districts. Scotland prides herself upon the blackband, yet a richer and cheaper material for iron making exists there in tenfold abundance. To what purpose do the geologists and mineralogists of the present age multiply books and learned treatises, upon the organic remains of defunct insects and reptiles of the eocene, pliocene, or miocene eras, yet overlook the rich treasures which lie neglected and unappreciated in this age of wisdom in trifles. It took the world 5000 years at least to discover pit coal; and I believe that it would take the geological world 5000 more, to discover that they have hitherto overlooked the principal ironstone formation in Great Britain.—R. MURPHY: *Coleford, July 14.*

ON THE POWER OF WATER-WHEELS.

SIR,—Your correspondent, Mr. Martyn, in the *Journal* of the 4th inst., has fallen into a very common error—viz.: the not giving sufficient data for the solution of the question he proposes. If he will inform your readers of the height of the fall in feet, and the weight of the water per second, in all probability he will get the answer he requires. OPTIMUS.

Blackburn, July 10.

THE CORNISH STEAM-ENGINE.

SIR,—We hear much of the vast superiority in power of the Cornish engine: we have our attention called to their enormous cylinders of 85 and 90 inches diameter, with 10 feet and 11 feet stroke in cylinder, and much has been claimed for Mr. Sims's combined cylinder engine; but, in looking over *Lean's Engine Reporter*, which I invariably do, I am always struck by the extraordinary performance of a small engine at the Great United Mines—viz.: Eldon's 30-inch cylinder engine. By the return for June last, it appears, that the duty performed was 67·7 millions of lbs. raised 1 foot high by the consumption of a bushel of coal, with a load of 16 lbs. per inch on the piston—making just upon nine strokes per minute, working continually day and night for 30 days, the total number of strokes being 374,000, and the consumption of coal in the month being 564 bushels. In the same report we have only two engines that beat this in amount of duty, and these are both Mr. Sims's—viz.: one at Godolphin, a single 80-inch, and the 50-inch and 90-inch combined cylinder engine at Carn Brea—the duty of the former is 74,000,000, with a load of 12½ lbs. per inch on the piston, with 6½ strokes per minute—total, 269,000; and with a consumption of 2280 bushels of coals: that of the latter is 72,000,000, with a load of 16½ lbs. per inch, 5·3 strokes per minute—total, 185,000; consumption of coal, 758 bushels.

Now, sir, my object in writing this letter is not to underrate Mr. Sims's or any other Cornish engines, but to draw attention to the subject of engine reporting, and to express my surprise that, if one engine exists so much inferior in size, and yet performing a larger duty with so small a portion of fuel, that others are not made on the same plan; or that, if the duty performed by the engines as there expressed is not generally understood, or cannot be well compared, considering all circumstances—such as height of lift, quantity of water raised, drawing perpendicularly or diagonally, whether solely for pumping or doing other work, &c.—then I should recommend that Messrs. Lean add another column, showing the actual quantity of water raised in the month by each engine, with which addition (having the depth, diameter of pumps, and every necessary particular), it would be a matter of easy calculation as to the relative superiority of any one engine, as compared with another; it would then amount to a simple arithmetical formula—viz.: If one engine, consuming 500 bushels of coal per month, raise 1,000,000 tons of water 10 fms. high (the depth, diameter of pumps, and other circumstances being considered), how many tons should another engine raise, consuming 2000 bushels of coal—other circumstances being also estimated? I have long considered the system of calculating the working of Cornish engines anything but explicit to the uninitiated; and Messrs. Lean would confer an additional favour on the public, and add considerably to the utility and interest of their monthly report, by such an addition or alteration as would render comparison easy and correct.—DEVONSHIRE: *Plymouth Dock, July 15.*

TUTWICK AND TRIBUTE.

SIR,—I think none can read the letter that appeared in your last paper on this subject, signed "A Mole," without being struck with the sincerity, impartiality, and good feeling that runs through it. This writer has evidently been brought up in "Wisdom's" school, and has attended to her admonition, when she has said to him—"Open thy mouth, judge righteously, plead the cause of the poor and needy." But, in paying the utmost respect and all due deference to this valuable correspondent, on his advice to use "oil" rather than "vinegar," I will frankly give my sentiments that I have no hope of anything like reform or amendment, on the subject in view, emanating from the operative officers in mines: it is their interest to keep the matter as it is; and if ever a change takes place, it must be through our convincing the principals, consisting of lords, adventurers, and directors, that the change would be highly beneficial to them, as well as to the workmen. It is generally known (and this writer confirms it), that miners prefer working by contract or speculation to fixed wages or owner's account. True, but for what cause? Why, that a fair price is never allowed on owner's account; and especially because a kind of stigma has been attached to day work in mines. Let us sift this matter. I am an advocate for fair speculation and enterprise, and our nation is celebrated for it; but, like every other virtue, it becomes a vice when it is suffered to run wild. Let every man listen to the universal teacher, and "sit down and count the cost, whether he have sufficient to finish it," before he engages in any adventure. Hundreds of families have recently been reduced from competence to indigence by railway speculations; and the press has told us that numbers, unable to bear the consequences of their rash undertakings, have destroyed themselves, with their property, by suicide. But this disposition in workmen, to prefer uncertain to certain earnings, is an infirmity and not a merit. The parent of it is "avarice," and is nothing more or less than a desire to obtain more than they deserve. We have it from the highest authority—"Be content with your wages," and, surely, the man who knows that, if he does not earn a certain sum, both he and his family will want the necessities of life, is the last man in the world who should speculate. I see with satisfaction that "A Mole" has bespoken a place in the *Journal* next week, and as he is much more competent to the arduous task than I am, I shall cut short my epistle to make him room. I observe that one of your beautiful clandestine correspondents, who signs "The Miner," is not satisfied with telling lies and giving abuse, but he has given me a mathematical challenge also! What a pity, Mr. Editor, that "Bob Acres" had not taken him for a second instead of the red-hot Irishman; because, if he had sent a challenge to "Jack Absolute," and concealed his name, he would have escaped the shame and terror of the field when the cowardly fit came on him when Jack appeared, and the pistols dropped from his trembling hands, and he cried out—"Oh! I feel my courage oozing out at the tips of my fingers." Let this poltroon come forward openly, and I will try his mettle. JOHN BUDGE.

Callington, July 13.

ATMOSPHERIC RAILWAYS—BURNIER'S BAROMETRIC SYSTEM.

SIR,—In several past numbers of the *Mining Journal* has appeared long articles on (what is termed) the "barometrical" system, for rarefying the air in the exhaustion tube of atmospheric railways, which appear to me to be any thing but explicit, in describing the principle advocated; in fact, it is more a dissertation in railway transit generally, than an illustration and support of any one system particularly—a dissertation which, summed up, implies what may be comprised in the three lines in his last week's letter, printed in italics—viz.: "that railways will require a definite system of working, in which the power must be produced in the most economical manner, and applied in the whole of its value." He forgot to add, "always securing perfect safety," but that shall be implied. Now, sir, in the first place, I must acknowledge that I do not quite comprehend the description given of the "barometrical" exhausting or rarefying apparatus; his diagrams in the *Journal*, of the 4th inst., being exceedingly vague, the walls of the cylinders totally undefined (the lines being merely ropes passing

over pulleys), their motion and its effects not described, or the use to which the pipe is applied. Notwithstanding such deficiency of description, it is apparent that the principle is that of merely an enormous air-pump, with a 30 ft. stroke; and I feel confident, that so far from the great desideratum of "economical power, applied in the whole of its value," being achieved by this plan, the cost of working would be great, and an enormous amount of such costly power be lost, long ere it reached the object intended—viz.: an exhaustion of the working tube, to a good working pressure of mercury. The first cost would be an enormous addition over the fixed stationary engines now in use connected with the pumps—for, in addition to engines of as great, if not greater power, imagine, at every station, the enormous cost of an excavation, something like the descent to the Thames Tunnel, with its system of cylinders, powerful working tackle, large supply of water &c. Every practical engineer is perfectly aware, that in the exhaustion of air from a tube, by even a double action air-pump, a less dense body of air is taken out at every stroke, and, consequently, a large amount of the power is expended in overcoming reaction; in the compression of air the loss is, doubtless, still greater—the exact amount, however, is yet undefined, and it is most probable less than the exaggerations of some would make it, and greater than others are aware of. Whatever the loss may be, it appears to me, that moderately large air-pumps, exhausting a chamber in connection with the tube, is the most legitimate mode of working, and I certainly shall not feel convinced of even the practicability of Mr. Burnier's system, until I see a better description of its workings, the diameter and height of tank and cylinders, their weight, that of the inner one when loaded with water, cost of construction, and the horse-power required to keep them in continual working, with the length which such system of rarefaction would be able to securely work between two stations.—ENGINEER: *Blackfriars-road, July 14.*

ATMOSPHERIC RAILWAYS—THE BAROMETRIC SYSTEM.

SIR,—The practical results of air-pumps applied to working atmospheric railway, are one of the best illustrations of the necessary consequences of small apparatus, attended by special causes of great friction, as employed to perform a large operation.

Let us suppose, on the contrary, that, instead of the small cylinders used, some would be employed large enough to perform the operation in a single stroke—the friction of the piston increasing only as the diameter; whilst the capacity increases as the square of the radius, would be proportionately much less—the friction and leakage of the valves suppressed (a cock could be employed)—the great amount of power lost at the end of each stroke, to make a circular motion, be changed into a rectilinear one, saved; the surface of the piston being large, the least difference of pressure on every square inch would become quite sensible on the whole; the slow motion of the piston would allow to proportionate always the power to the resistance—and the operation being finished, when the piston would reach the top of the cylinder, time would not be lost in letting it down; its weight would be more than sufficient to cause its lowering, and the pressure caused on it by the rarefied air under, would become a power to be usefully employed. The great faults of the system of air-pumps had been foreseen by some men used to look forward in any question—the principal object presented by the system of vacuum reservoirs, of water tanks, were these economical characteristics—constant working, large apparatus: are the bases of these systems right? This will be the object of our investigation. We must recall here, that when we express our humble opinion on the works of men that we respect and admire, as it must be in any scientific discussion—truth is our object—our only object—our support—any other must be laid aside. A clear and fair appreciation has been established, based upon positive calculations; and any lover of truth will accept it from wherever it comes.

The effect produced in working atmospheric railway is represented by a certain space travelled over by the piston in its course—by a certain pressure exercised, whilst it travels, on every square inch of its surface.

The power expended is represented by certain spaces opened—by the pressure on every square inch necessary to open them. Taking as unity the volume of the tube, we express the spaces opened by their proportion to this unity; and the produces of the spaces by the pressures on every square inch, are the amounts to be compared.

According to the means proposed for working railway by vacuum reservoirs, the air to be rarefied, was to be let into certain vacuum spaces previously produced; and exhaustion being thereby produced, a new space was opened to withdraw the air from the propelling tube, and cause the train to be moved.

If we want to appreciate what is by this system the proportion between the power expended, and the effect produced, we shall first express this effect, P, taking, for instance, an operation performed at one-half exhaustion, the useful effect will be, $P = 1$, volume of the tube, $\times 7\frac{1}{2}$ lbs., pressure on every square inch = 7·3.

We know that, for one-half exhaustion, the space to be opened to the air, previous to the starting of the train, is equal to the capacity of the tube; we know that the space to be opened to withdraw the air is equal also to the capacity of this tube; and as any space of vacuum, produced by any means, represents on every square inch a pressure equal to that of the atmosphere, we shall have as value of the power expended: $q = 1 \times 14\frac{1}{2} + 1 \times 14\frac{1}{2} = 29\frac{1}{2}$. [Table iv.]

We establish thus between the power and its effect—the proportion which gives their relative value:— $q : P :: 29\frac{1}{2} : 7\frac{1}{2}$; $100 : x$ —loss per cent. = 75. This amount of loss in the theoretical amount, arising from the use of the vacuum to produce exhaustion and traction; there are, besides, several special reasons of waste of power, in consequence of the means employed for producing vacuum. Chemical means have been thought to exist; but the simplest, the most ordinary way—that which is employed in all the condensing machines—is to fill spaces with steam, and condense the steam afterwards. A patent was sealed on the 22d October, 1844, for the direct application of this principle of producing vacuum to the working of atmospheric railways; and the idea contained in it, was to avoid any mechanical intermedia between the natural effect of the steam condensed, and the work performed, in consequence of this condensation; avoid the friction of a piston, the expenses of constructing, of keeping in order large cylinders, like those of steam-engines, was no doubt a great mark of the special aim to simplicity; but should the principle itself of the direct application of vacuum be defective and impossible, we see in the very construction of the apparatus some peremptory reasons of its never attaining its practical and economical effect.

Steam is not a body by itself—it is not a permanent gas—it is the manner of being of a body; its existence is the result of the actions of one of the great agents of Nature, heat, upon this body—it is a consequence of heat; heat is necessary to its existence; and as soon as heat ceases to exercise its effect, steam is no more steam—it becomes water.

Now, is it to be supposed, that steam introduced at a low degree of tension, in large reservoirs full of air—divided from this air by a mere difference of specific gravity, there will not be between the air and the steam a tendency to equalise their temperatures: caloric will not radiate from the steam to the air, and steam then cease to exist.

Why did James Watt remove from the cylinders of steam-engines all reasons tending to lower their temperature? Why did he entertain around them as much caloric as possible?—and what is the natural consequence of all these rational dispositions removed in the present apparatus, but to increase the expense of steam in the same proportion as James Watt's invention did diminish it?

A long experience, the observations of many very illustrious men, have brought us to construct some apparatus in which the steam acts in these conditions of temperature, of exclusion rendered necessary by its nature: we can fairly appreciate the effect of those engines—we obtain from them a secure, constant, and regular power, and to apply it requires only some special apparatus, constructed according to the object they are destined to perform, and being, as we said, the transition from the power to the resistance. The idea of applying steam vacuum to working atmospheric railways, has been claimed, with more or less reasons, by two most distinguished engineers; it happened even, in the discussion, that a third party, rather forgetful of economy, did not consider much difference between applying to the purpose high or low pressure steam. But, we must not recall circumstances already far behind us, and which will soon be forgotten, with the cause which produced them. The great mistake of the introducers of the steam vacuum system, has been to calculate the question as a question of volume, whilst the value to be considered was altogether the volume to be opened, and the pressure necessary to open it—and the produce of these two quantities.

The manner of creating vacuum, by a certain quantity of water falling out of a closed tank, and leaving its place to the air to be exhausted, presents the advantage of a continual working, but the water, falling into the large reservoir by means of pumps, subject to the same inconveniences

as those used for extracting air from the propelling tube in the actual system. If we consider one of these reservoirs, and the manner in which water is raised in it, and falls when exhaustion is to be created, we see the level to which the water is raised, changing continually with its height in the tank: this change, we must observe, is not a rapid one—so that the engine might, by cutting off the stroke or any other means, be made to work accordingly; but still a very doubtful economy arises from the cutting off the steam; and it is always much better to have a steam-engine working regularly, and its power regularly employed. We see, again, when exhaustion is produced, a high column of water leaves to the air only its place, when its weight could open four or five times the same space; and as the lowest point at which the level of the water must be at the end of the operation, is exactly corresponding to the highest pressure wanted, it results that it is the only moment in which the power equilibrates the resistance—and that in all the course of the operation of working, the height of the water is different from that necessary. Without entering into further details of the means employed to avoid this last inconvenience, we shall say that, amongst the schemes proposed, that of the water tanks has at least the advantage of being practically possible; but a great argument, an insurmountable obstacle against its economical possibilities, is the use of small apparatus, of pumps subject to continual disorders: the use of air-pumps at Croydon has proved enough, as regards the insufficiency of such means.

The result of our appreciation of the various systems of working railways, and atmospheric railways especially, is that there are no means presenting the grand economical characteristics: that, therefore, none of these systems can be free from change and improvement—can be a *definitive system*, for the construction of which railway companies can safely lay out their capital. The characteristics of this definitive system we have here laid down: they are—*Constant and regular working—Employ of large and simple apparatus—Unity of direction.*

The system of working, in its special nature, either atmospheric or other, must present no loss of the power produced.—Which is this system?

Dufour's place, July 15. N. A. BURNIER.

P.S.—We are pleased to take notice, that, according to our remarks in the *Mining Journal* of the 27th June, the engineer of a company, entitled "Atmospheric Railway and Canal Propulsion," has acknowledged, at the meeting of the 9th instant, the atmospheric system to be more difficult of application to canal and river propulsion.

Proceedings of Public Companies.

MEETINGS DURING THE ENSUING WEEK.

MONDAY.....Union Bank of Australia—office, at One.
Richmond Railway—London Tavern, at One.
TUESDAY.....Commercial Bank of London—office, at One.
Perth and Inverness Railway—Thatched House Tavern, St. James-st., Ten.
WEDNESDAY.....York and Lancaster Railway—at One for Two.
THURSDAY.....Croydon Mining Company—office, at One.
Northern and Southern Connecting Railway—London Tavern, at One.
Direct Western Railway—King's Head, Poultry, Eleven for Twelve.
FRIDAY.....Consolidated Copper Mines of Cobre Association—office, at One.
SATURDAY.....Australian Trust Company—office, at Twelve.
Great Northern Railway (London & York)—Hall of Commerce, at One.

[The meetings of Mining Companies are inserted among the Mining Intelligence.]

LONDON JOINT-STOCK BANK.

The half-yearly general meeting of this company was held on Thursday, the 16th inst., at the establishment, Princes-street, Mansion-house, W. M. CHRISTY, Esq., in the chair.

The SECRETARY having read the report—see our advertising columns—Mr. T. MOORE made an objection to their keeping up so large a reserve fund as 110,000, when they had been told that 100,000 should be the maximum. He thought the balance now applied to that fund should be divided amongst the proprietors.—Mr. DEPUTY CORNEY was desirous of knowing from the directors the probable limit of that reserve fund.—Mr. FOSTER (a director) said, that the board had a desire to see the concern established on the most solid and firm basis possible, so as to secure the public confidence. With this view, they were not yet agreed whether the reserve fund ought to be 120,000, or 150,000, but they would be able to report by the next meeting. (Hear, hear.)

In answer to a question as to the increased expenditure.—Mr. A. MOORE (a director) said, that arose partly from the increase of business; and, again, from the expenses of the west-end establishment having been added to the account.

The CHAIRMAN said, that the expenditure was less than it was in the last half-year, in proportion to the business transacted.

After some further observations, the report was adopted, and the dividend, at the rate of 6 per cent. per annum, was agreed to unanimously.

A vote of thanks was then passed to the chairman and directors, and to Mr. Pollard (the manager), when the meeting adjourned.

ST. KATHARINE DOCKS.

The half-yearly meeting of the proprietors of stock in this company was held at the Dock-house, Tower-hill, on Tuesday, the 14th inst., for the purpose of receiving a report from the court of directors, to declare a dividend, and for the election of directors to serve for the year ensuing.

Mr. THOMAS TOOKER in the chair.

The SECRETARY read the minutes of the last court.

The CHAIRMAN stated, that, pursuant to the usual course of proceeding, the amount of dividend to be now declared would be the same as last half-year's. He would, therefore, propose that a dividend of 2½ per cent. for the half-year ended the 30th June last (the company paying the income tax) should be declared. As no doubt it would be satisfactory to the proprietors to have laid before them an abstract of the returns made up for the half-year, relative to the trade of the port of London, as compared with that of 1845, he would read the following statistics:—

PORT OF LONDON.

Account of the Number of Vessels, and of their Register Tonnage, that entered with cargoes from Foreign Ports, during the first six months of the years 1845 and 1846.

	1845.	Tonnage.	Ships.	Tonnage.
British	2160	490,886	2303	494,916
Foreign	1003	141,995	993	165,551
Total	3163	632,881	3296	660,567
Increase in 1846—133 ships, and 37,686 tons.				

ST. KATHARINE DOCKS.

Ships entered with cargoes during Six Months ended 30th June, in the following years:—

1844.		1845.		1846.	
Ships.	Tons.	Ships.	Tons.	Ships.	Tons.
269	67,895	300	84,422	324	87,380
Increase in 1846—24 ships, and 2958 tons.					

MERCHANDISE.

Stock of goods in warehouse June 30, 1846—1196 tons, exceeding like period in 1845.

The report was adopted, and the dividend, as proposed by the directors, agreed to.

Mr. POYNTER proposed a vote of thanks to the chairman and the court of directors, for their zealous exertions in promoting the interests of the proprietors, and especially for increasing the facilities of trade, rendered necessary by the recent alterations in the tariff.

The motion was seconded by Mr. Ald. FARNOCK, and carried unanimously.

An election for directors then took place, after which the court was adjourned.

DIRECT WESTERN RAILWAY COMPANY.

A special meeting of the scripholders in this company, was held, in virtue of the "dissolution bill," at the Kings Head Tavern, Poultry, on Thursday, the 16th inst., to consider the best steps to be taken to dissolve the company, and obtain payment from allottees, who were defaulters.—Mr. Alderman CHALLIS, the new sheriff, was called to the chair; and, in opening the business, he observed, that he took the chair most reluctantly, from the regret he felt that this company was an illustration of the fact, that, however good the intentions of the promoters of a railway, however much wanted by the public, whatever honesty, integrity, and perseverance, the acting committee might evince for the fully and profitably carrying out the measure, their best efforts might be defeated by the very parties to whom they had shown the preference in the allotment of shares, and in whom they had placed confidence for assistance, withholding payment of their deposits. If one thing more than another tended to show the *foolish and valuable nature* of this undertaking, and the consistent intentions of its promoters, it was the fact, that the Great Western Company lost 10 or 12 bills which had come before Parliament, solely on their merits, on one important point—namely: their not extending to Falmouth—the place which was to have formed the terminus of this company. The promoters and the provisional committee had shown themselves honest; although, by great exertions, the plans, sections, &c., were lodged before Parliament in time, as soon as they found they could not succeed for want of funds, they reduced to the utmost the current expenses, and practised every possible economy. It appears, further, from the chairman's remarks, that there had been 400,000 applications for shares; that the 120,000 shares were allotted, to some extent, to parties on the line, and in every way the committee thought most likely to conduce to the interests of the company; that, out of these, 17,600 shares only had been paid on; and, that, thus their proceedings were arrested, while they had every prospect of complete success, and feared no opposition in Parliament. The accounts which were read, showed that the receipts were 44,813 3s.; and expenses, 30,142 5s. 3d.—leaving a balance in hand, of 14,670 17s. 9d., to which must

be added 2000, since received. There were further claims of 2877 19s. 7d., which, however, would be greatly reduced, or perhaps entirely set aside. A very lengthened discussion ensued—in which the Chairman, Mr. Ald. Sidney, Lieut.-Col. Johnstone, and Mr. Whalley, took part—as to the best mode of proceeding; three scrutineers were appointed—Messrs. Bischoff, Coleman, and G. Thompson—when it was found there were not sufficient present to decide; the votes of those present, were however taken, when there appeared, out of 2958 present—for a dissolution without bankruptcy, 2845; for a bankruptcy, none; neuter, 140. An adjournment to that day week was then decided on, and the meeting broke up.—The directors offer immediately 25s. per share to the original allottees—receiving nothing themselves until further funds are obtained—a proceeding to them most honourable; and it is expected 5s. more will be receivable.

GREAT LUXEMBOURG COMPANY.

The first meeting of this company was held at the London Tavern, on Tuesday, the 14th inst., and was most numerous and respectfully attended—indeed, we have seldom seen so much of the capital and intelligence of the City crowded into one place. The report, which was long and full of most valuable information, was read, and its adoption, and a vote of thanks to the chairman and directors, were carried with acclamation. The importance and extent of this railway claims our notice. Its termini are Brussels, Metz, and Treves, with branches; one to connect the main line with the Great Luxembourg Canal, for the traffic and minerals of Liege and its vicinity; another into the heart of Ardennes to Bastogne; and a third to the iron works in the north east of France by prolongations—viz.: the State lines in Belgium, the Paris and Strasbourg from Metz, and the lines in progress from Treves to the Rhine at Mannheim and Bingen. This noble project will connect the ports of Antwerp and Ostend with the Meuse at Namur, the Moselle at Treves and Metz, and the Rhine in Bavaria and France. It is thus destined to become the great artery of communication between the north and south of Europe, and cannot fail to attract travellers to Germany, the north eastern part of France, Switzerland, Austria, and Italy; it will also prove the shortest route for Mr. Waghorn in his Overland journey to India. On the subject of revenue, a very elaborate investigation into the wants and resources of the countries traversed, and into the traffic actually existing along the line, gave at the tariff of the Belgian concession a dividend of 8 7/8 per cent. per annum. This, from the law of increase, determined by the experience of all long lines, cannot fail to be doubled by the time this extended system of railway communication is fully at work. From what we know of the country, and the fact that this undertaking has a monopoly for 12 of its first years, with a preference of every branch or extension which may be desirable afterwards, we feel sure we shall see its annual dividend three times that amount within a few years from its opening. We are pleased with the favour this undertaking has received from the Governments of the different countries interested in its completion. As a consequence thereof, it has the following advantages peculiar to itself—viz.:

1. Permission (as yet refused to every project) to start from the capital, and thus become a metropolitan line, the State railroads alone being permitted to approach and have termini at Brussels.
 2. The freedom from competition for 12 years, with a right of preference afterwards, as above-named.
 3. A tariff, both for passengers and goods, which is upwards of 31 per cent., or nearly one-third higher than the tariff of the Belgian state lines; in addition to which, it is permitted to this company to raise its tariff 10 per cent. during the six winter months; and
 4. The free bestowal of all Government lands needful for the project.
- Other striking advantages are common to all the Belgian projects—viz.: freedom from impost of every kind, and an average rate of cost of construction, much below that of English roads. The Great Luxembourg line, with its extensions, has been estimated at 11,850,000 per mile. The average of the State lines—viz.: 347 miles—was 17,237,000 per mile; whilst 30 of our English lines, nearly 1500 miles in extent, have averaged upwards of 43,000,000 per mile. We were much struck with the extended statistics of the report, as also with some important additions in the speech of the president, both of which will repay a careful perusal. The map appended is valuable, as giving the most recent and correct statement of all European lines. The shareholders were greatly pleased with the open conduct of the directors in the financial part of their functions. The entire of the shares (150,000 in number) were allotted at once, in July last year; and, of this number, 143,000 were immediately paid upon. Interest, at the rate of 4 per cent. upon the shares, from the 1st of January last, is now payable at the offices of the company; and it was stated, that no further call would be made this year. Great applause followed the announcement, that, however extended had been the operations of the directors during the past year, they had, by personal attention to their responsibilities, exacted so rigid an economy, that the outlay at present would not exceed 2s. 6d. per share.

CORNWALL AND WEST CORNWALL RAILWAYS.—The merits of these bills, which now form but one scheme, having been referred to a select committee, came before the House of Lords yesterday, when they decided not to hear evidence against the bill, on behalf of the opposing line, the Cornwall and Devon Central. Mr. Austin, for the promoters, spoke at great length in favour of the scheme, and several merchants were examined as to traffic, until 4 o'clock, when the committee adjourned.

THE "GREAT WESTERN" LOCOMOTIVE.—On Wednesday last, another experimental test of the powers of this superior engine was made between London and Swindon, which, as before, was completely successful. The train selected was that which takes the morning mails, which, on this occasion, consisted of 14 carriages—viz.: two horse boxes, four carriers' trucks, four first-class carriages, three second class, and one van—the whole, with engine and tender, weighing 120 tons. The several stations were gained as follows:—Slough, 18 miles, in 25 m. 50 s.; Maidenhead, 43 miles, 8 m. 40 s.; Reading, 154 miles, in 19 m. 35 s.; Wallingford-road station, 114 miles, in 16 m. 50 s.; Didcot, 44 miles, in 9 m. 40 s.; Farringdon-road station, 104 miles, in 14 m. 45 s.; and reached Swindon, distant 184 miles, at 12 h. 55 m. 10 s., in 17 m. 40 s.—thus performing the whole journey of 79 miles in 2 h. 22 m. 20 s., or rather better than 33½ miles per hour. The usual time taken by this train is 2 h. 50 m. There can be no doubt the *Great Western* is a very superior engine; but still there is nothing wonderful in this journey for the broad gauge advocates to pride themselves on—much more rapid journeys than this are daily made on the narrow gauge lines, and we append some remarks of Mr. Leahy, C.E., on a trip he lately took on the Birmingham and Gloucester Railway: he says—"I travelled, on the 6th of April last, by the morning train, which leaves Birmingham at 10 minutes past 8 o'clock, for Gloucester. The train consisted of nine carriages with passengers, and a luggage van, and was drawn by the *Stratford* engine, which corresponds in all respects with the *Atlas*—both engines being built at the same time, and by the same makers. We timed our speed exactly, with stop watches, between Broomsgrove and Gloucester, at each quarter-mile post; and I can state, that we maintained, for the greater part of the journey, an average speed between the stations of 58 miles per hour, and frequently our velocity was 65 miles an hour."

Major-General Pasley officially inspected the Richmond yesterday, and expressed his entire approval of the line. He authorised the directors to announce the opening of the same to the public on Monday, the 27th inst.

M. Schmidt, the engineer, after having visited England, has returned to Vienna, and has pronounced in favour of executing an atmospheric line at Somerby; it is the intention to commence the works without delay.

The directors of the North Jamaica have announced their intention to proceed with the scheme.

LEVEL CROSSINGS.—Major-Gen. Pasley has reported against the expediency of permitting the East and West India Dock Extension of the London and Birmingham crossing the London and Blackwall upon a level. The Lord's committee have especially reported on the question, unequivocally confirming the Report of the Inspector, principally on the ground of its being incompatible with public safety.

Mr. Stephenson, in order to set at rest the doubts expressed respecting the practicability of the iron tunnel across the Menai Straits, has had an iron model 30 feet long, and 4 feet high, made and fixed at an engineering factory at Mill-wall. Extensive experiments have been made on it in the presence of distinguished scientific gentlemen, with the most satisfactory results.

Mr. Eadon has been appointed superintendent of the Preston and Wyre at a salary of 3500 a year.

The London and Birmingham, Eastern Counties, and Eastern Union, are said to be competitors for the purchase of the Blackwall. The rumour originated in an offer made by the Birmingham and East and West India Dock Company for permission to cross the Blackwall. With reference to this railway, a correspondent remarks, very opportunely, that it is the only terminus that exists, or is likely to exist, in the heart of the City, and can readily be applied as a City terminus to any of the existing lines on the north of the metropolis.—*Railway Chronicle* of this day.

SHROPSHIRE MINERAL RAILWAY.—Tyler v. Newcombe.—This was a suit instituted by a shareholder, on behalf of himself and others in the above railway, charging various acts of fraud against the finance committee and some of the directors. The defence was a want of parties; it being argued, that all the directors—all the provisional committee—and a committee appointed to investigate the affairs—ought to be before the court.—The Vice-Chancellor reserved the point until the hearing.

Few persons are aware, that from 1700 to 1844, there are on record 101 shocks of earthquakes in England, 138 in Scotland, and 17 in Wales.

LIVER, STOMACH, OR BOWEL COMPLAINTS, CURED BY HOLLOWAY'S PILLS.—In close, hot, or sultry weather, the food in the stomach frequently ferments and brings on bowel complaints, which is at all times dangerous to weak and elderly persons. When the liver is out of order, it induces heavy and drowsy sensations—the forerunners of difficult diseases, as dropsy, apoplexy, paralytic strokes, &c.; such and other baneful consequences are immediately prevented by a few doses of these searching pills, while they speedily and surely banish disease when the system is already under its direct influence. Persons at the turn of life should, at so critical a period, take Holloway's pills, which are sold by all druggists, and at the proprietor's establishment, 244, Strand, London.

IMPORTANT TO ENGINEERS, MANUFACTURERS, RAILWAY AND STEAM-BOAT COMPANIES.

Messrs. W. & C. MATHER beg to call the attention of the ABOVE PARTIES to their

IMPROVED ELASTIC METALLIC PISTONS.

The PRINCIPAL FEATURE AND ADVANTAGE OF THIS IMPROVEMENT is—1. Its great ELASTICITY AND SELF-ADJUSTING PROPERTIES, which enable it to yield to any inaccuracy of the cylinder, whether oval or taper, and to move with the least possible friction.

2. Its extreme SIMPLICITY AND LIGHTNESS, consisting of only two pieces of metal, having the vertical and lateral pressure in due and proper proportion, independent of each other.

3. It takes the LEAST possible SPACE, and is well adapted for air and water-pumps, as it allows of a larger water way.

Messrs. W. & C. MATHER feel confident that it is the BEST ELASTIC METALLIC PACKING yet known, for the above reasons.

Models may be seen at the Ralford Iron-Works, Manchester; at W. Barker's, engineer, Newton-Moor; and also at J. Mather's, engineer, Beaufort-street, Chelsea, London.

PATENT VULCANISED INDIA RUBBER.

CHARLES MACINTOSH & CO.

Beg to inform the Public that they are the Patentees and sole Manufacturers of the above Substance. The distinguishing properties of the Patent Vulcanised India Rubber are, its uniform elasticity in various temperatures; its not becoming hard on exposure to extreme cold, nor liable to injury from contact with heat. Its strength is greater than that of native caoutchouc; it is indissoluble in essential oils; it resists the effects of oil and grease in different degrees, according to the purposes for which it is manufactured.

Among the various useful applications of the Patent Vulcanised India Rubber, may be enumerated—

WASHERS or RINGS for joints in steam, and water-pipes, and for valves for steam-engines; by which labour is economised, and the joints more effectually made, than by any other mode.

ELASTIC BANDS, for holding together bundles of letters, papers, &c.

IN ARTICLES OF DRESS—Springs for waistcoat-backs and trousers, straps for trousers, breech-bands, garters, &c.

IN CALICO-PRINTING, the substitute for blanket has been found to produce a much finer impression than the woolen hitherto used, and with considerably less pressure; hence a saving in power, and wear of lapping.

COVERS for furnishing rollers (in lieu of flannel), are perfect for their purpose; and, as the India Rubber does not absorb moisture, they can be easily cleansed, and no colour need be wasted.

FLEXIBLE HOSE for fire-engines, brewers' purposes, gas, &c.

SPRINGS for railway and other vans and carriages, and for buffers and drags.

CORRUGATED FELT, for placing between the rails and the chairs of railways, on the sleepers, to take off the ultimate concussion, and to prevent in wooden continuous sleepers the embedding of the rails, &c.

Cambridge-street, Chorlton-upon-Medlock, Manchester, April, 1846.

CHARLES MACINTOSH & CO., PATENTEES, and SOLE MANUFACTURERS, of the VULCANISED INDIA RUBBER, beg to inform MERCHANTS and FACTORS, that they have ESTABLISHED WORKS at

No. 22, COLESHILL-STREET, BIRMINGHAM.

for the MANUFACTURE of ARTICLES from the VULCANISED INDIA RUBBER, under the patent granted to S. Perry and T. B. Daft; and, for the convenience of those parties who have been supplied with elastic bands for holding together parcels of papers, &c., vest backs, trouser puffs, straps for trousers, boot gussets, belts, garters, &c., they have retained the original numbers given to all the articles, so that orders described accordingly will have immediate attention.

The Vulcanised India Rubber has been much improved in quality, and the effluence of sulphur on the surface entirely removed.

Cambridge-street, Manchester, June 24, 1846.

PROJECTED RAILWAYS.—BENSON, LOGAN, & CO.'S

PATENT METALLIC SAND CEMENT.

ITS MERITS, as stated in letter to the proprietors, by James Thomas Knowles, Esq., architect, Raymond's-buildings, Gray's Inn, are—

1.—"The great tenacity with which it adheres to brick, stone, and iron.

2.—"Its freedom (when properly applied) from those cracks and flaws by which the cements generally used for external stuccoing are so frequently disfigured.

3.—"The total absence of the unsightly tint produced by vegetation.

4.—"The increased hardness which it acquires from exposure to atmospheric influences.

5.—"The great beauty, accuracy, and durability of the mouldings, capitals of columns, crockets, finials, and other architectural enrichments and decorations formed of it—the smallest and most delicate members of which, as well as the sharpest arched, have withstood unimpaired the severities of our climate, during many winters, and now present the same perfect and highly finished appearance as would be produced by stone carvings carefully executed.

6.—"The excellent and agreeable tone of colour which it assumes naturally, and retains without the aid of any colouring or painting.

And, lastly,—"Its extreme hardness and almost entire impenetrability, when used as a mortar, in the construction of inverted or relieving arches, foundations under important superstructures, and small bearing piers, which have to sustain great weights. For all these purposes it has been extensively used under my directions; and, in some cases, has been exposed to very severe trials. The results have, however, without one exception, been most satisfactory; and I do not believe that there are any known substances so well adapted for the execution of works, in which the greatest strength and durability are essential."

Price of metallic sand at Swansea, place of manufacture, 16s. per ton, or in London, 20s. per ton of 21 bushels.

Further information will be given, and specimens shown, on application to Mr. C. K. Dyer, 4, New Broad-street; and at the Metallic Cement Wharf, King's-road (opposite Pratt-street), Camden New Town, London.

SEYSEL ASPHALTE COMPANY—CLARIDGE'S

PATENT.—ESTABLISHED MARCH, 1839.

FOR WORKING THE MINERAL ASPHALTE ROCK OF PYRMONT SEYSEL, A Bituminous Rock, situated on the Eastern side of the Jura.

PRINCIPAL DEPOSITS: ROUEN, MARSEILLES, AND STANGATE, Surrey Side of Westminster-bridge, London.

The ASPHALTE of SEYSEL has been EXTENSIVELY USED, since March, 1839, for the following useful purposes:—

FOOT PAVEMENTS (public and other) MALT-HOUSE FLOORS

KITCHEN FLOORS (public and other) FIGGERIES, &c.

BASEMENTS—where it is essential to keep damp from rising

GARDEN WALKS AND TERRACES

CARRIAGE DRIVES

COACH-HOUSES AND STABLING

DOG KENNELS

BAIN FLOORS

TUN ROOM FLOORS

The Sessel Asphalt Company are prepared to enter into special contracts for the execution of railway work, and other public works of magnitude.

L. FARRELL, Secretary, Sessel Asphalt Company, Stangate, London.

OFFICE FOR PATENTS, 7, STAPLE INN, HOLBORN.

J. MURDOCH (successor and late assistant to Mr. Hebert)

informs INVENTORS and PATENTEES, that, at his OFFICE, they can obtain

REFERENCE TO A CLASSIFIED LIST OF PATENTS,

(THE ONLY ONE EXTANT), which shows at one view all the Patents ever granted for any particular object, whereby they may save much trouble and expense, and procure information not otherwise obtainable. BRITISH AND FOREIGN PATENTS OBTAINED, and USEFUL AND ORNAMENTAL DESIGNS REGISTERED.

SPECIFICATIONS carefully prepared, and REPORTS of ENROLLED SPECIFICATIONS furnished on moderate terms.

FINISHED AND WORKING DRAWINGS executed with accuracy and dispatch.

MANUFACTURERS' MUTUAL PROTECTION SOCIETY

TRAVERS

ROBERT ALEXANDER GRAY, Esq., 29, St. Swithin's-lane.

JOHN RATLIFF, Esq., Wood-street, Cheapside.

JOSEPH TRITTON, Esq., Lombard-street.

HANKERS.

Messrs. Barclay, Bevan, Tritton, and Co., London.

SOLICITORS.

Messrs. Vallance and Vallance, 20, Essex-street, Strand, London.

This society is established for the purpose of protecting Merchants and Manufacturers from the fraudulent use and imitation of their names, trade-marks, and manufactures.

The courts of law in this country, as also those of the United States and France, afford to the British manufacturer the fullest protection. Experience has, however, shown that there are hundreds of merchants and manufacturers who are suffering from a fraudulent imitation of their names, manufactures, and trade-marks, who do not feel disposed to enter into litigation, and fight individually a battle which is really for the benefit of all manufacturers.

For a small annual subscription, and without any further charges, or incurring any further liability or expense, each member has the opportunity of obtaining, free from all charge, opinions as to his rights in respect of any fraudulent imitation of his name, trade-marks, or manufactures; and he is also entitled to put the society in motion against any person who may counterfeit his name or trade-marks, whether in the United Kingdom, on the continent of Europe, or in any part of the British dominions, or the United States.

The whole cost of such proceedings is borne by the funds of the society.

The funds of the society are vested in the trustees, and the affairs are under the control of the committee of management.

Prospectuses, and any further information, may be obtained on application, by letter, addressed to the secretary; or, personally, at the office of the society, No. 20, Essex-street, Strand, London.

DOMESTIC BREWING—the PATENT CONCENTRATED

MALT AND HOP EXTRACT, enables PRIVATE INDIVIDUALS to MAKE

FINE HOME-BREWED ALE

WITHOUT EMPLOYING ANY BREWING UTENSILS.—It has only to be dissolved in

hot-water and fermented.—Sold, in jars, from 1s. to 7s. 6